



# 42 New & Expanded Major Manufacturers!

## SEMICONDUCTORS &

|           |                   |
|-----------|-------------------|
| Atmel     | Microchip         |
| Avago     | Micron            |
| Cypress   | NXP/Philips       |
| Dallas    | Renesas           |
| Fairchild | SanDisk           |
| Intel     | Siliconix         |
| Intersil  | ST Micro          |
| Lumex     | Texas Instruments |
| Lumileds  | Toshiba           |
| Maxim     | Vishay            |

## PASSIVES

|               |           |
|---------------|-----------|
| Aavid         | Condor    |
| AlcoSwitch    | CTS       |
| AMP           | Elco      |
| Amphenol      | Grayhill  |
| Aromat        | Keystone  |
| Augat         | Molex     |
| AVX           | Panasonic |
| Bourns        | Power-One |
| Buchanan      | Raychem   |
| C&K           | Tyco      |
| Comair Rotron | Wakefield |

1-800-831-4242  
www.Jameco.com

# Faster Expansion than Any Other Catalog Distributor!

## The Best Reasons to Shop Jameco!

- ✓ Over 99% of Catalog Products Are in Stock and Ship the Same Day
- ✓ We Guarantee the Lowest Prices!
- ✓ Real Choice: Name Brands and Money-Saving Jameco Brands
- ✓ Over 200,000 Cross References on Our Web Site

## New & Expanded Manufacturers

|              |            |                   |
|--------------|------------|-------------------|
| Aavid        | Elco       | Philips           |
| AlcoSwitch   | Extech     | Power-One         |
| AMP          | Fairchild  | Raychem           |
| Amphenol     | Grayhill   | Renesas           |
| Atmel        | Intel      | Rip Tie           |
| Augat        | Intersil   | SanDisk           |
| Avago        | Keystone   | Siliconix         |
| AVX          | Littelfuse | STMicro           |
| Bourns       | Lumileds   | Texas Instruments |
| Buchanan     | Lumix      | Toshiba           |
| C&K          | Maxim      | Tyco              |
| ComairRotron | Microchip  | Vishay            |
| Condor       | Micron     | Wakefield         |
| CTS          | Molex      |                   |
| Cypress      | ON Semi    |                   |
| Dallas       | Panasonic  |                   |

## RoHS Compliant Products

Over 80% of the products in this catalog are available in RoHS compliant versions for those shipping product to the European Union!

Products are coded for your convenience. RoHS compliant products are marked with the **R**. Many other products have a **⊕** to indicate both compliant and non-compliant versions are available. Simply add an **R** to the beginning of the non-compliant Part Number shown and you'll get the RoHS equivalent product at the best available market price.

Need more RoHS information? Visit our web site at [www.jameco.com/RoHS](http://www.jameco.com/RoHS).

## Great Reasons to Buy from Jameco!

### Highest In-stock Availability

Our history shows 99+% of the orders placed from this catalog will be shipped out the same day! We're not perfect, and we're sorry when we let a customer down. But none of our major competitors can come close to making this claim.

*In Stock*  
**99+%**  
*Always*



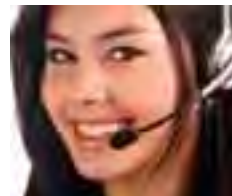
### The Best Prices

Being competitive is very important to our product marketing team. That's why they spend a tremendous amount of time and resources researching other cataloger's pricing to make sure we can live up to our much-talked-about low-price guarantee.

Simply stated, if you find a lower print-advertised price for a product, let us know. We'll offer you that product for 10% less than their price, right down to our cost!

### Dedicated Account Representatives

When you're placing orders on a regular basis, it's nice to have the same person represent you whenever you shop. At Jameco, we assign account representatives to assist regular buyers. And unlike other distributors, we offer this service to anyone needing an assigned representative to assist in regular purchases.



### Products Easily Found on Web Site

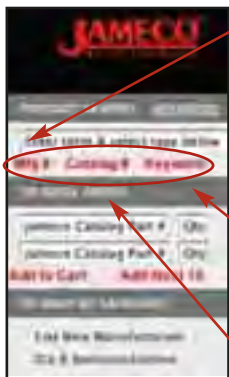


All the products in this catalog and 10's of thousands of others are available to you on our web site at [www.jameco.com](http://www.jameco.com). Simply enter the manufacturer's part numbers

you need in the top left search box on the home page and click on the link labeled Mfg #. Our web site will locate the product you're looking for and provide you with our renowned pricing and quantity breaks.

## New Web Search Capabilities!

Our search engine has been updated, allowing you to request specific manufacturer part numbers, a Jameco SKU number or a keyword cross-reference.



### Mfg #

To search by manufacturer number, just enter the number in the text box shown on the left and click on Mfg #. Jameco's web site will display all matching products we offer, regardless of manufacturer. Enter a portion of the part number and you'll get all the devices that contain that text.

### Keyword

To find products containing a specific keyword, simply enter the text and click on Keyword. This search will also return applicable cross references.

### Catalog #

Looking for a specific SKU from Jameco's catalog?

Simply enter the number into the text box and click on Catalog #. Jameco's web site will return the exact Manufacturer and Part Number referred to in the catalog.



During the last quarter of 2006, we added **over 65,000 new products** from 42 top-tier name-brand manufacturers to our website. We believe this to be the fastest expansion for any electronic component distributor in the US.

In 2007, we'll continue to push ourselves to the limits every day to bring you the **best selection** of needed products, at the **best prices** and with the

**best service** levels available. We'll continue to make huge, frequent additions to our web site. And just like this last quarter, we'll continue to expand each catalog's product line by about 15-20% each quarter.

We're focused on the brands you have told us you need the most. Names like Atmel, T.I., AVX, Comair Rotron, Dallas, Fairchild, Freescale, Grayhill, Maxim, Molex, National, Panasonic, Power-One, SanDisk, ST Micro, Tyco and many others.

Plus, our product managers are focused on **the actual products you need most**. Unlike other distributors who bring in an entire manufacturer's product selection, whether you're interested in all of them or not, Jameco product managers make the extra effort to add only those product lines which make sense for our customers. As a result, you get an easier-to-read catalog with less chaff products. And if you want something beyond what's offered in our catalog, check out our website for 10's of thousands of additional products.

*Bob Croshaw*

Bob Croshaw,  
CEO and President  
Jameco Electronics Ltd  
[BobC@Jameco.com](mailto:BobC@Jameco.com)



## Late Additions.....329

### ICs & Semiconductors.....4-39

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## PRICES

Prices are effective 01-08-07.

Prices and discounts are subject to change without notice.

## Contact Information

**Order Desk 24/7, 365 Days a Year**  
Phone: 1-800-831-4242  
Fax: 1-800-237-6948  
E-mail: [Sales@Jameco.com](mailto:Sales@Jameco.com)

**Technical Support**  
Phone: 1-800-831-4242  
E-mail: [Tech@Jameco.com](mailto:Tech@Jameco.com)

**Customer Service**  
Phone: 1-800-831-4242  
E-mail: [CustService@Jameco.com](mailto:CustService@Jameco.com)

**Credit Department**  
Phone: 650-592-8097  
E-mail: [Credit@Jameco.com](mailto:Credit@Jameco.com)

**International Order Desk**  
Phone: 650-592-8097  
Fax: 650-592-2503  
E-mail: [International@Jameco.com](mailto:International@Jameco.com)

**International Toll-Free Fax**  
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Indonesia: 1-803-015-237-6948  
Brazil: 000-817-455-6119  
New Zealand: 080-044-0470

**The Jameco RobotStore**  
Phone: 1-800-374-5764  
Website: [www.RobotStore.com](http://www.RobotStore.com)

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## Over 200 New Atmel Products

Now Jameco offers more of the leading microcontrollers, memory and PLD products from Atmel's advanced offering. Be sure to check these great new additions!

- 16LV, 16V, 20V & 22V Programmable Logic Devices
- AT24C Series 2-Wire Serial EEPROM
- AT28 Series Parallel EEPROM
- AT29 Series 5V Flash Memory
- AT45 Series DataFlash® Serial Flash
- AT80C & AT89C Microcontroller Families
- AT93C46 3-wire Serial EEPROM

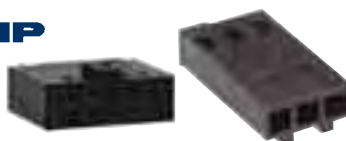
See pages 5, 11-16 & 25 for complete selection.



## Over 350 AMP/Tyco Products Added!

Jameco just added hundreds of new products to this catalog, including the AMPMODU interconnection system, the AMP-Latch™ IDC ribbon cable connectors and the MTA 100 IDC connectors. Each family offers unique precision-formed contacts for greater tolerance.

**AMP**

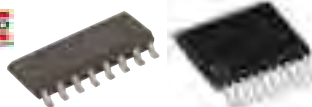


See pages 114-162 for complete selection.

## Now From Fairchild Semiconductor!

Now you can find some of the most popular 3.3V logic devices at Jameco! Plus we just added the NC7S TinyLogic® Ultra High Speed family for your demanding requirements.

- 74LCX, 74LVT & 74LVX 3.3V Logic Families
- 74VHC Logic Family
- NC7S Ultra High Speed Series of TinyLogic®



See pages 21-35 for complete selection.

## New! Dallas Semiconductor

Jameco now carries more of the Dallas Semiconductor line of Real Time Clocks in traditional 5V and Low-Voltage 3.3V configurations. Turn to page 26 for a wide selection of devices with and without RAM and crystals in DIP and various surface mount packages.

**DALLAS**



See pages 6, 23 & 26 for complete selection.

## Now Available: Lite-On Opto Products!

You can now purchase Lite-On LEDs, Displays and Opto-isolators from Jameco! We just added the following lines to this catalog, and you'll find more products on our web site!

- LTC, LTD & LTS 7-segment Displays
- LTL 3 - 5mm LED Lamps
- LTV Series Opto-Isolators
- LTE Infrared LEDs

**LITEON**



See pages 41-42 & 51-52 for complete selection.

## New SchmartBoard Proto Boards

The SchmartBoard system is a fast and easy electronic circuit prototyping system that supports through-hole and surface mount components. SchmartBoard is the only prototyping system that you can work on one circuit block at a time, test the blocks individually, and then physically connect the blocks together.

**SchmartBoard**

See page 329 for complete selection.



## #1 in the Industry!

Over 99% of this catalog's products are in stock, so you can rest assured there will be no delays. We believe this service level is unmatched by anyone in the industry.



When you shop at Jameco, you're assured your products get to you faster! For starters, you can place your order with a live person, any time of day or night. And yes, we're there 24/7/365 to take your order by phone, fax, web or email, whichever is most convenient for you!

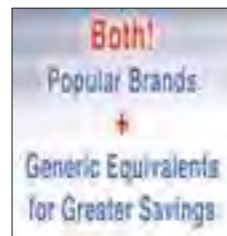
Place an order for any in-stock item in this catalog before 6 PM EST and we'll ship it out the same day! No questions asked, and no priority charges.



For years, Jameco has offered a solid price guarantee that no one seems to dispute. Why don't the other electronic components catalogers challenge it? We think because they can't; the Jameco price guarantee is just that good! Simply stated, Jameco has the lowest prices you'll find in any catalog or advertisement—period.

So if you ever run into a print-advertised price that's lower than an identical item in our catalog, we'll not only match the lower price, we'll beat it by an additional 10%, right down to our cost. No fine print, and no questions asked!

In addition to offering popular name brands at the lowest prices for BOMs and AVLs that require them, we also offer in-house brands. We offer professional-grade Jameco house brands of non-semiconductor products at substantially reduced prices; typically 20-30% below popular name brands. These in-house brands offer a substantial savings versus the name brands, so you've got a real choice in product prices.



Jameco makes comparisons easier too! We offer side-by-side listings, allowing you to compare like products on the same catalog page.

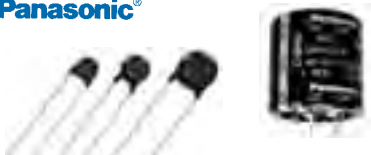


## Over 400 Panasonic Products Added!

Jameco has also added over 400 Panasonic products to this catalog alone! Check out these popular families today!

- ECE VS series Aluminum Electrolytic Caps
- ERJ Thick Film Chip Resistors
- EXB Chip Resistor Arrays
- ERZ "ZNR" Transient/Surge Absorbers
- Relays: AGN, DS2E H, J and T Series

**Panasonic**



See pages 67, 76-77, 80 & 198-200 for selection.

## New! TI 74LVT and 74ABT Series Logic

Now Jameco offers you Texas Instruments' SN74LVTH Mixed-Mode Voltage and SN74ABT BiCMOS logic devices. The SN75LVTH devices are designed specifically for low-voltage (3.3V) VCC operation, but have the capability to provide a TTL interface to a 5V system environment.



**TEXAS INSTRUMENTS**

See pages 18 & 21-22 for complete selection.

## Just Added! Microchip Memory Devices

Jameco just added Microchip's EEPROM devices to the catalog and hundreds more are on our web site. Be sure to check out the great products below.

- 24LC Series Serial EEPROM
- 93LC Series Serial EEPROM

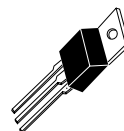


See pages 12-13 for complete selection.

## 500 New Freescale/ON Semi Products

Jameco recently expanded it's line of Motorola/Freescale/ON Semi products on the web site, and now we're adding a select few to the catalog. Be sure to check out the following offering in this catalog.

- MBR Series Schottky Power Rectifiers
- MC10 & MC100 Series ECL Devices
- MC14 & MC145 Series CMOS
- MC68HC Family MCUs
- MC78 & MC79 Series Voltage Regulators
- MR & MUR Series Std & Ultrafast Rectifiers



**ON Semiconductor**

**freescalc**

See pages 6-7, 19-28, 32 & 38-39 for complete selection.

## Just Added! Maxim Semis

Maxim is renowned for their unique single-rail RS-232 level converters. These +5V supplied devices provide standard  $\pm 15V$  outputs to maximize signal-to-noise ratios and keep reliability high. Be sure to turn to pages 23-24 to find over 80 new transmitters, receivers and transceivers.

**MAXIM**



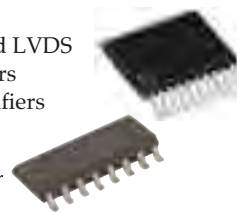
See pages 23-24 for complete selection.

## New From National Semiconductor

Jameco now offers hundreds of new products from National Semiconductor. Be sure to look for the following product lines which have just been added to this catalog.

- DS14C Series RS-232 Transceivers
- DS26/DS34 Differential Line Transceivers
- DS90 High-speed LVDS Drivers/Receivers
- LM Series Amplifiers

**National Semiconductor**

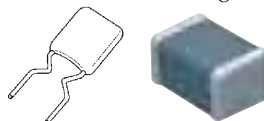


See pages 23-29 for complete selection.

## 600 New AVX Products

Jameco now offers thousands of AVX products on our web site. And in this catalog, we just added about 600 NP0, X5R, X7R, Y5V and Z5U surface mount capacitors. Our selection has never been larger!

**AVX**

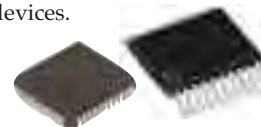


See pages 66-72 for complete selection.

## New! NXP/Philips Microcontrollers

Now Jameco offers more of the P80C, P87C and P89C families of microcontrollers you use every day! Plus, we've also added a selection of their PCA95 I<sup>2</sup>C specialty devices.

**PHILIPS**  
**NXP**



See pages 8, 31 & 329 for complete selection.

## More Extech Instruments

Jameco just added more instruments from one of the largest suppliers worldwide. Flip through pages 272-275 and check out the array of DMMs and unique special purpose instruments Jameco now offers.

**EXTECH**



See pages 282-283 for complete selection.



RoHS Compliant Product  
RoHS Also Available

Details  
on  
Page 1

Color Code Legend  
New Sale Lower\$ QtySave

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

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## PIC Microcontrollers

For more Microchip Microcontrollers  
visit [www.Jameco.com](http://www.Jameco.com)

| Part No. | Product No.     | Pkg.    | Memory | Speed (MHz) | ROM Words | RAM Bytes | I/O Pins | 1      | 25     |
|----------|-----------------|---------|--------|-------------|-----------|-----------|----------|--------|--------|
| 145111   | PIC16F84-04/P   | DIP-18  | Flash  | 4           | 1k        | 68        | 13       | \$6.59 | \$4.39 |
| 145120   | PIC16F84-10/P   | DIP-18  | Flash  | 10          | 1k        | 68        | 13       | 7.09   | 6.49   |
| 223790   | PIC12F629-I/P   | DIP-8   | Flash  | 20          | 1k        | 64        | 6        | 1.49   | 1.25   |
| 223781   | PIC12F675-I/P   | DIP-8   | Flash  | 20          | 1k        | 64        | 6        | 1.69   | 1.07   |
| 312514   | PIC12F683-I/P   | DIP-8   | Flash  | 20          | 4k        | 128       | 6        | 2.19   | 2.05   |
| 323096   | PIC16F505-I/P   | DIP-14  | Flash  | 20          | 1k        | 72        | 12       | 1.65   | 1.49   |
| 312531   | PIC16F54-I/P    | DIP-18  | Flash  | 20          | 512       | 25        | 12       | 1.79   | 1.73   |
| 193439   | PIC16F627-20/P  | DIP-18  | Flash  | 20          | 1k        | 224       | 16       | 3.29   | 2.85   |
| 193447   | PIC16F628-20/P  | DIP-18  | Flash  | 20          | 2k        | 224       | 16       | 3.49   | 2.52   |
| 246756   | PIC16F628-20I/P | DIP-18  | Flash  | 20          | 2k        | 224       | 16       | 4.05   | 3.04   |
| 223749   | PIC16F630-I/P   | DIP-14  | Flash  | 20          | 1k        | 64        | 12       | 1.89   | 1.67   |
| 247142   | PIC16F648A-I/P  | DIP-18  | Flash  | 20          | 4k        | 256       | 16       | 3.25   | 2.55   |
| 223757   | PIC16F676-I/P   | DIP-14  | Flash  | 20          | 1k        | 64        | 12       | 2.19   | 1.43   |
| 312590   | PIC16F684-I/P   | DIP-14  | Flash  | 20          | 2k        | 128       | 12       | 2.25   | 1.78   |
| 312611   | PIC16F688-I/P   | DIP-14  | Flash  | 20          | 4k        | 256       | 12       | 2.79   | 2.58   |
| 312670   | PIC16F737-I/SP  | DIP-28  | Flash  | 20          | 4k        | 368       | 25       | 5.39   | 4.65   |
| 193404   | PIC16F74-I/P    | DIP-40  | Flash  | 20          | 4k        | 192       | 8        | 6.19   | 5.47   |
| 312717   | PIC16F767-I/SO  | SOIC-28 | Flash  | 20          | 8k        | 368       | 25       | 6.69   | 5.63   |
| 312709   | PIC16F767-I/SP  | DIP-28  | Flash  | 20          | 8k        | 368       | 25       | 6.29   | 5.38   |
| 193412   | PIC16F76-I/SP   | DIP-28  | Flash  | 20          | 8k        | 368       | 5        | 6.49   | 5.65   |
| 312725   | PIC16F777-I/P   | DIP-40  | Flash  | 20          | 8k        | 368       | 36       | 6.55   | 5.89   |
| 193421   | PIC16F77-I/P    | DIP-40  | Flash  | 20          | 8k        | 368       | 8        | 5.25   | 4.79   |
| 223765   | PIC16F818-I/P   | DIP-18  | Flash  | 20          | 1k        | 128       | 16       | 2.75   | 2.36   |
| 223773   | PIC16F819-I/P   | DIP-18  | Flash  | 20          | 2k        | 256       | 16       | 2.85   | 2.29   |
| 193332   | PIC16F84A-20/P  | DIP-18  | Flash  | 20          | 1k        | 68        | 13       | 5.59   | 4.66   |
| 246861   | PIC16F84A-20I/P | DIP-18  | Flash  | 20          | 1k        | 68        | 13       | 6.25   | 5.55   |
| 246895   | PIC16F870-I/SP  | DIP-28  | Flash  | 20          | 2k        | 128       | 22       | 4.35   | 3.05   |
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| 798198   | MCHC705J7CDW    | SOIC-28  | 6K EPROM, 224b LP RAM, 14 I/O                                   | 5.45    | 5.14    |
| 798235   | MCHC908QY4CDW   | SOIC-16  | 8-bit, 4Kb flash, 6-ch 10-bit ADC                               | 2.45    | 2.33    |
| 871949   | MC705P6ACDW     | SOIC-28  | 4Kb EPROM, 176b RAM, 4-ch 8-bit ADC, 20 I/O                     | 4.45    | 4.02    |

## DALLAS 80C/87C MCU Series

| Part No. | Cross Ref.   | Pkg.    | Description                      | 1       | 10     |
|----------|--------------|---------|----------------------------------|---------|--------|
| 114403   | DS80C320-MCG | DIP-40  | High speed LP micro              | \$12.09 | \$9.27 |
| 345367   | DS87C520-MCL | DIP-44  | EPROM/ROM MCU, high-speed        | 27.99   | 26.38  |
| 697311   | DS87C520-QCL | PLCC-44 | EPROM/ROM MCU, high-speed        | 40.25   | 30.51  |
| 697320   | DS87C520-QNL | PLCC-44 | EPROM/ROM MCU, high-speed        | 43.79   | 36.13  |
| 345359   | DS87C520-WCL | DIP-40  | EPROM/ROM MCU, high-speed        | 51.59   | 44.69  |
| 345341   | DS87C530-QNL | PLCC-52 | EPROM/ROM MCU w/ real-time clock | 36.25   | 32.59  |

## MICROCHIP 16-Bit Digital Signal Controllers dsPIC

The dsPIC® Digital Signal Controller (DSC) from Microchip is a powerful 16-bit (data) modified Harvard RISC machine that combines the control advantages of a high-performance 16-bit microcontroller (MCU) with the high computation speed of a fully implemented digital signal processor (DSP) to produce a tightly coupled single-chip single-instruction stream solution for embedded systems design. All integrate Flash program memory and most have EEPROM data storage.

- Memory: flash
- Speed: 40MHz

| Part No. | Product No.          | Pkg.    | MIPS | Program Mem. Bytes | SRAM Bytes | 1      | 25     |
|----------|----------------------|---------|------|--------------------|------------|--------|--------|
| 321787   | DSPIC30F2010-20I/SOG | SOIC-28 | 20   | 12k                | 512        | \$8.75 | \$7.90 |
| 321779   | DSPIC30F2010-20I/SPG | DIP-28  | 20   | 12k                | 512        | 8.75   | 7.90   |
| 321808   | DSPIC30F2010-30I/SOG | SOIC-28 | 30   | 12k                | 512        | 10.09  | 9.09   |
| 321795   | DSPIC30F2010-30I/SPG | DIP-28  | 30   | 12k                | 512        | 10.09  | 9.09   |
| 321816   | DSPIC30F6010-20I/PF  | TOFP-80 | 20   | 144k               | 8192       | 26.35  | 23.70  |
| 321824   | DSPIC30F6010-30I/PF  | TOFP-80 | 30   | 144k               | 8192       | 28.99  | 26.15  |
| 321832   | DSPIC30F6011-20I/PF  | TOFP-64 | 20   | 132k               | 6144       | 22.49  | 19.60  |
| 321841   | DSPIC30F6011-30I/PF  | TOFP-64 | 30   | 132k               | 6144       | 25.85  | 21.65  |
| 321859   | DSPIC30F6013-20I/PF  | TOFP-64 | 20   | 144k               | 8192       | 25.09  | 20.35  |
| 321867   | DSPIC30F6012-30I/PF  | TOFP-64 | 30   | 144k               | 8192       | 27.95  | 24.15  |
| 323053   | DSPIC30F6013-20I/PF  | TOFP-80 | 20   | 132k               | 6144       | 23.49  | 20.85  |
| 323061   | DSPIC30F6013-30I/PF  | TOFP-80 | 30   | 132k               | 6144       | 27.45  | 24.00  |
| 323070   | DSPIC30F6014-20I/PF  | TOFP-80 | 20   | 144k               | 8192       | 25.29  | 23.10  |
| 323088   | DSPIC30F6014-30I/PF  | TOFP-80 | 30   | 144k               | 8192       | 29.29  | 25.49  |

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product   ♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

## TI Digital Signal Processors

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| Part No. | Product No.        | Pkg.       | Description                          | 1       | 10      | 100     |
|----------|--------------------|------------|--------------------------------------|---------|---------|---------|
| 700103   | TMS320C203PZ80     | TOFP-100   | 288 RAM, 256 data/prog RAM, 64k I/O  | \$13.39 | \$12.99 | \$12.54 |
| 700111   | TMS320C25FNL       | PLCC-68    | 544 RAM, 4k ROM/EPROM, 64k data/prog | 39.77   | 36.33   | 33.99   |
| 700120   | TMS320C31POL4      | BOFP-132   | 32-bit floating point processor      | 67.99   | 60.99   | 51.35   |
| 700138   | TMS320C31POL60     | BOFP-132   | 32-bit floating point processor      | 69.99   | 65.99   | 59.99   |
| 700146   | TMS320C32PCM40     | QFP-144    | Enhanced 32-bit floating point proc. | 18.99   | 17.59   | 16.99   |
| 700154   | TMS320C32PCM60     | QFP-144    | Enhanced 32-bit floating point proc. | 32.99   | 31.29   | 30.59   |
| 700162   | TMS320C32PCMA50    | QFP-144    | Enhanced 32-bit floating point proc. | 34.99   | 33.79   | 32.89   |
| 700171   | TMS320C54CSTPGE    | LQFP-144   | Client side telephony DSP            | 15.99   | 14.59   | 13.99   |
| 700189   | TMS320C6201GJC200  | FC/SCP-352 | Fixed-point DSP                      | 156.99  | 153.99  | 149.13  |
| 700197   | TMS320C6711DGP200  | BGA-272    | Floating-point DSP                   | 30.99   | 30.59   | 29.99   |
| 700200   | TMS320C6713BGP225  | BGA-272    | Floating-point DSP                   | 47.99   | 46.99   | 45.99   |
| 700218   | TMS320C6713BGP300  | BGA-272    | Floating-point DSP                   | 62.99   | 61.59   | 60.99   |
| 700226   | TMS320F240PQA      | BOFP-132   | DSP controller                       | 27.99   | 26.39   | 25.59   |
| 700234   | TMS320F2811PBKA    | LQFP-128   | Digital signal processor             | 27.99   | 26.69   | 25.99   |
| 700242   | TMS320F2812GHA     | BGA-179    | Digital signal processor             | 28.99   | 28.39   | 27.69   |
| 700251   | TMS320F2812PGFA    | LQFP-176   | Digital signal processor             | 28.99   | 28.29   | 27.65   |
| 700269   | TMS320LF2406APZA   | LQFP-100   | DSP controller                       | 15.99   | 15.13   | 14.75   |
| 700277   | TMS320VC33PGE120   | LQFP-144   | 32-bit floating point processor      | 19.99   | 19.39   | 18.89   |
| 700285   | TMS320VC33PGE120   | LQFP-144   | 32-bit floating point processor      | 23.99   | 23.27   | 22.69   |
| 700293   | TMS320VC5402PGE100 | LQFP-144   | Fixed-point DSP                      | 12.57   | 11.25   | 10.15   |
| 700306   | TMS320VC5409PGE100 | LQFP-144   | Fixed-point DSP                      | 18.99   | 18.57   | 18.09   |
| 700314   | TMS320VC5416GDU160 | BGA-144    | Fixed-point DSP                      | 49.99   | 48.59   | 47.39   |
| 700322   | TMS320VC5416PGE120 | LQFP-144   | Fixed-point DSP                      | 43.99   | 42.79   | 41.68   |
| 700331   | TMS320VC5416PGE160 | LQFP-144   | Fixed-point DSP                      | 49.95   | 48.65   | 47.39   |
| 700349   | TMS320VC5441GGU    | BGA-169    | Fixed-point DSP                      | 199.99  | 197.99  | 193.03  |
| 700357   | TMS320VC5502PGF300 | LQFP-176   | Fixed-point DSP                      | 17.15   | 16.67   | 16.25   |
| 700365   | TMS320VC5509AGHH   | BGA-179    | Fixed-point DSP                      | 31.99   | 31.35   | 30.59   |
| 700373   | TMS320VC5510AGW2   | ↑          | Fixed-point DSP                      | 37.99   | 37.19   | 36.29   |
| 700381   | TMS320VC5510AGWV2  | ↑          | Fixed-point DSP                      | 47.99   | 46.79   | 45.65   |
| 700390   | TMS320C6414EGLZAE3 | FCBGA-532  | Fixed-point DSP                      | 214.69  | 208.99  | 204.05  |
| 700402   | TMS320C6415EGLZAE3 | FCBGA-532  | Fixed-point DSP                      | 193.99  | 188.69  | 183.99  |
| 700411   | TMS320C6713BGP200  | BGA-272    | Floating-point DSP                   | 48.99   | 47.85   | 46.59   |

↑ Package Type = BGA Microstar-240

## Z80 MPUs

| Part No. | Cross Ref.  | Pkg.    | Description                                    | 1      | 10     | 100    |
|----------|-------------|---------|--|--------|--------|--------|
| 35561    | Z80         | DIP-40  | 2.5MHz CPU (MK3880N/780C)                      | \$1.39 | \$1.19 | \$1.09 |
| 35596    | Z80A        | DIP-40  | 4MHz CPU (MK3880N-4/780C-1)                    | 1.99   | 1.79   | 1.59   |
| 35609    | Z80A-CTC    | DIP-28  | 4MHz counter timer circuit (MK3882-4)          | 1.99   | 1.79   | 1.59   |
| 35625    | Z80A-DART   | DIP-40  | 4MHz dual asynchronous receiver/trans          | 3.49   | 3.19   | 2.89   |
| 35641    | Z80A-PIO    | DIP-40  | 4MHz parallel I/O interf. contr. (MK3881-4)    | 1.99   | 1.79   | 1.61   |
| 35668    | Z80A-SIO/O  | DIP-40  | 4MHz serial I/O (Tx/Cx & Rx/Cx bond.) MK3884-4 | 2.19   | 1.79   | 1.59   |
| 35705    | Z80B        | DIP-40  | 6MHz CPU (MK3880N-6)                           | 2.59   | 2.39   | 2.09   |
| 280410   | Z8018006PSC | DIP-64  | Z180 MPU, MMU, DMA, UART, INT                  | 8.05   | 7.26   | 6.61   |
| 280428   | Z8018006VSC | PLCC-68 | Z180 MPU, MMU, DMA, UART, INT                  | 8.05   | 7.26   | 5.08   |
| 35781    | Z84C00-4    | DIP-40  | 4MHz CPU (Z84C0004PEC) CMOS                    | 4.15   | 3.49   | 2.55   |
| 280516   | Z84C0008PEC | DIP-40  | Z80 CPU with 3 mode int., 16 regs.             | 3.35   | 3.05   | 2.28   |
| 280567   | Z84C4008PEC | DIP-40  | Dual data ch. communication interface          | 6.59   | 5.60   | 4.20   |
| 61786    | Z85C3008PSC | DIP-40  | Serial communications controller               | 4.99   | 4.57   | 3.92   |

♣ Pull = Extra Savings   ♣ Blue Part No. = Limited Quantity Available

## PIC BASIC Programming and Projects

**Newnes Publications** The BASIC language, is introduced from square one, with simple code used to illustrate each of the most commonly used instructions. PIC BASIC is the simplest and quickest way to get up and running – designing and building circuits using a microcontroller. (210 pages, 2001)

| Part No. | Description           | Size        | Wt. (lbs.) | 1       | 10      |
|----------|-----------------------|-------------|------------|---------|---------|
| 200168   | PIC BASIC Programming | 6.1" x 9.2" | 0.8        | \$38.95 | \$37.00 |



## 6500 Series

| Part No. | Cross Ref. | Pkg.   | Description                           | 1      | 10     | 100    |
|----------|------------|--------|---------------------------------------|--------|--------|--------|
| 43191    | 6502       | DIP-40 | CPU, 8-bit, 1MHz                      | \$6.75 | \$5.90 | \$5.30 |
| 43166    | 65C02      | DIP-40 | CPU, 8-bit, 1MHz                      | 5.95   | 4.45   | 3.10   |
| 43254    | 6522       | DIP-40 | Versatile interface adapter, 1MHz     | 4.05   | 3.25   | 2.95   |
| 43297    | 6532       | DIP-40 | RAM I/O timer, 1MHz                   | 7.95   | 6.99   | 6.49   |
| 43318    | 6551       | DIP-28 | Asynch. comm. interface adapter, 1MHz | 3.95   | 3.36   | 2.52   |

♣ Pull = Extra Savings

## 6800/68000 N-MOS

| Part No. | Cross Ref. | Pkg.   | Description                               | 1      | 10     | 100    |
|----------|------------|--------|---|--------|--------|--------|
| 43481    | 6800       | DIP-40 | CPU, 8-bit, 5V, 2MHz                      | \$6.95 | \$5.25 | \$3.65 |
| 43502    | 6802       | DIP-40 | CPU, 8-bit, 5V, 1MHz                      | 8.49   | 7.65   | 6.89   |
| 43529    | 6803       | DIP-40 | CPU, 8-bit, 5V, 1MHz                      | 7.79   | 6.99   | 6.29   |
| 43537    | MC6808     | DIP-40 | CPU, 8-bit, 7V, 1MHz                      | 8.95   | 8.06   | 7.25   |
| 43545    | 6809       | DIP-40 | CPU, 8-bit, 7V, 1MHz                      | 3.95   | 3.59   | 3.25   |
| 320590   | 68B09E     | DIP-40 | CPU, 8-bit, 7V, 2MHz                      | 3.95   | 3.36   | 2.52   |
| 43561    | 6810       | DIP-24 | SRAM, 1K-bit, 5V, 1MHz                    | 2.95   | 2.65   | 2.39   |
| 43596    | 6821       | DIP-40 | Peripheral inter. adptr, 8-bit, 7V, 1MHz  | 3.95   | 3.59   | 3.25   |
| 43414    | 68B21      | DIP-40 | Peripheral inter. adptr, 8-bit, 7V, 1MHz  | 4.95   | 4.49   | 4.05   |
| 43617    | 6840       | DIP-28 | Programmable timer, 16-bit, 5V, 6MHz      | 2.49   | 2.25   | 1.99   |
| 43633    | 6850       | DIP-24 | Asynch. comm. int. adptr, 8-bit, 7V, 1MHz | 2.39   | 2.09   | 1.89   |
| 25304    | MC68000L8  | DIP-64 | CPU, 16-bit, 7V, 8MHz                     | 8.95   | 7.95   | 7.25   |
| 25291    | MC68000L10 | DIP-64 | CPU, 16-bit, 7V, 10MHz                    | 13.45  | 11.49  | 8.59   |
| 25355    | MC68701    | DIP-40 | MCU, 8-bit, 29 I/O, 2MHz                  | 15.95  | 13.95  | 12.55  |
| 25363    | MC68705P3S | DIP-28 | MCU, 8-bit, 20 I/O, 4MHz                  | 24.95  | 22.95  | 20.65  |
| 25371    | MC68705U3S | DIP-40 | MCU, 8-bit, 20 I/O, 4MHz                  | 26.95  | 22.94  | 20.65  |

♣ Pull = Extra Savings ♠ Refurbished = Backed by Jameco



## freescale 6800/68000 CMOS

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| Part No. | Cross Ref.       | Pkg.     | Description                                 | 1       | 10      | 100     |
|----------|------------------|----------|---|---------|---------|---------|
| 698664   | MC68HC11A1CFN3   | PLCC-52  | MCU, 8-bit, HCMOS, 8kB ROM                  | \$12.65 | \$12.22 | \$11.75 |
| 698672   | MC68HC11D0CFN2   | PLCC-44  | MCU, HCMOS, ROM based, 3MHz                 | 5.75    | 5.45    | 5.15    |
| 698681   | MC68HC11E1CFN2   | PLCC-52  | MCU, 8-bit, 38 I/O, 2MHz                    | 10.64   | 10.25   | 9.65    |
| 248604   | MC68HC11E1CFN3   | PLCC-52  | MCU, 8-bit, 38 I/O, 3MHz                    | 8.85    | 7.25    | 6.55    |
| 248583   | MC68HC11F1CFN3   | PLCC-68  | MCU, 8-bit, 30 I/O, 3MHz                    | 11.39   | 9.18    | 8.27    |
| 698701   | MC68HC11K1CFN4   | PLCC-84  | MCU, 768bytes RAM, 4MHz                     | 18.15   | 17.61   | 16.99   |
| 698710   | MC68HC16Z1CEH1   | PQFP-132 | MCU, 16-bit, 8/10-bit ADC, 16.78MHz         | 20.85   | 19.86   | 18.91   |
| 698736   | MC68HC16Z1CFC16  | PQFP-132 | MCU, 16-bit, 8/10-bit ADC, 16.78MHz         | 20.85   | 19.86   | 18.91   |
| 698744   | MC68HC16Z1CFC25  | PQFP-132 | MCU, 16-bit, 8/10-bit ADC, 25MHz            | 22.95   | 21.85   | 20.81   |
| 698752   | MC68HC16Z1CPV16  | LQFP-144 | MCU, 16-bit, 8/10-bit ADC, 16.78MHz         | 16.75   | 16.27   | 15.81   |
| 698761   | MC68HC16Z1CPV25  | LQFP-144 | MCU, 16-bit, 8/10-bit ADC, 25MHz            | 18.45   | 17.58   | 16.75   |
| 698779   | MC68HC705B16NCFN | PLCC-52  | MCU, 8-bit, 25bytes EPROM, 3.8-bit para I/O | 14.65   | 13.99   | 13.39   |
| 698787   | MC68HC705C8ACFB  | QFP-44   | MCU, 8-bit HCMOS, 24 I/O (bidirectional)    | 9.35    | 8.75    | 8.05    |
| 248647   | MC68HC705C8ACFN  | PLCC-44  | MCU, 8-bit, 31 I/O, 4MHz                    | 7.19    | 5.30    | 5.00    |
| 698795   | MC68HC705C8ACP   | DIP-40   | MCU, 8-bit HCMOS, 24 I/O (bidirectional)    | 9.35    | 8.75    | 8.05    |
| 108919   | MC68HC705C8CP    | DIP-40   | MCU, 8-bit, 24 I/O, 4MHz                    | 7.65    | 6.61    | 6.51    |
| 132484   | MC68HC705C8S     | DIP-40   | MCU, 8-bit, 24 I/O, 4MHz                    | 38.95   | 34.95   | 26.21   |
| 132530   | MC68HC705J1ACP   | DIP-20   | MCU, 8-bit, 14 I/O, 4MHz                    | 2.09    | 1.89    | 1.79    |
| 698808   | MC68HC705J7CDW   | SOIC-20  | MCU HCMOS, 14 I/O, 100kHz                   | 5.19    | 4.89    | 4.59    |
| 698816   | MC68HC705K1CDW   | SOIC-16  | MCU, 10 I/O, 4MHz                           | 1.79    | 1.71    | 1.65    |
| 698824   | MC68HC705K1CP    | DIP-16   | MCU, 10 I/O, 4MHz                           | 2.49    | 2.19    | 1.89    |
| 698832   | MC68HC705SR3CP   | DIP-40   | MCU, HCMOS, 8-bit, 32 I/O, 3840bytes EPROM  | 15.35   | 14.59   | 13.69   |
| 248575   | MC68HC711E9CFN2  | PLCC-52  | MCU, 8-bit, 38 I/O, 2MHz                    | 14.79   | 11.49   | 10.34   |
| 698867   | MC68HC711E9CFN3  | PLCC-52  | MCU HCMOS, 8-bit, 38 I/O, 3MHz              | 17.25   | 16.89   | 16.39   |
| 698875   | MC68HC711E9MNF2  | PLCC-52  | MCU HCMOS, 8-bit, 38 I/O, 2MHz              | 20.55   | 19.55   | 17.99   |
| 698841   | MC68HC711E2CFN2  | PLCC-52  | MCU HCMOS, 8-bit, 38 I/O, 2MHz              | 23.59   | 22.89   | 22.19   |
| 698859   | MC68HC711E2CFN3  | PLCC-52  | MCU HCMOS, 8-bit, 38 I/O, 3MHz              | 24.75   | 23.89   | 23.09   |
| 698883   | MC68HC812A4CPV8  | LQFP-112 | MCU, 16-bit, 8-bit A/D, 4Kbyte EPROM, 2MHz  | 20.79   | 19.59   | 18.59   |
| 698891   | MC68HC908AB32CFU | QFP-64   | MCU, 8-bit, 32Kbytes flash, 51 I/O          | 11.59   | 10.99   | 10.49   |
| 698904   | MC68HC908GP32CFB | QFP-44   | MCU, 8-bit, 32Kbytes flash, 33 I/O          | 10.09   | 9.89    | 9.69    |
| 248356   | MC68HC908GP32CP  | DIP-40   | MCU, 8-bit, 33 I/O, 8MHz                    | 9.99    | 9.65    | 9.25    |

♣ Blue Part No. = Limited Quantity Available

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

## freescale 6800/68000 CMOS (Cont.)

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| Part No. | Cross Ref.       | Pkg.   | Description              | 1      | 10     | 100    |
|----------|------------------|--------|--------------------------|--------|--------|--------|
| 323213   | MC68HC908GR8CP   | DIP-28 | MCU, 8-bit, 21 I/O, 8MHz | \$6.25 | \$5.31 | \$5.01 |
| 323192   | MC68HC908JK1CP   | DIP-20 | MCU, 8-bit, 15 I/O, 8MHz | 2.79   | 2.01   | 1.91   |
| 248428   | MC68HC908KX8CP   | DIP-16 | MCU, 8-bit, 13 I/O, 8MHz | 5.35   | 4.85   | 4.65   |
| 323221   | MC68HC912B32CFU8 | QFP-80 | MCU, 8-bit, 15 I/O, 2MHz | 20.55  | 19.52  | 18.48  |

## 8000 N-MOS

| Part No. | Cross Ref. | Pkg.   | Description                         | 1      | 10     | 100    |
|----------|------------|--------|-------------------------------------|--------|--------|--------|
| 51844    | 8031       | DIP-40 | MCU, 8-bit, 32 I/O, 8MHz            | \$3.45 | \$3.15 | \$2.80 |
| 102197   | 8032       | DIP-40 | CPU, 8-bit, 32 I/O, 12MHz           | 3.95   | 3.59   | 3.25   |
| 51861    | 8035       | DIP-40 | CPU, 8-bit, 27 I/O, 11MHz           | 3.95   | 3.59   | 3.25   |
| 51959    | 8039       | DIP-40 | CPU, 8-bit, 27 I/O, 6MHz            | 4.49   | 3.82   | 2.86   |
| 51983    | 8049       | DIP-40 | CPU, 8-bit, 27 I/O, 6MHz            | 1.95   | 1.75   | 1.59   |
| 51991    | 8051AP     | DIP-40 | MCU, 8-bit, 27 I/O, 11MHz           | 5.49   | 4.99   | 4.49   |
| 52003    | 8052AH     | DIP-40 | MCU, 8-bit, 32 I/O, 12MHz           | 7.99   | 7.19   | 6.49   |
| 52046    | 8080A      | DIP-40 | CPU, 8-bit, 32 I/O, 1MHz            | 4.65   | 4.05   | 3.75   |
| 52062    | 8085AH     | DIP-40 | CPU, 8-bit, 16 I/O, 3MHz            | 4.99   | 4.49   | 3.99   |
| 52071    | 8085AH-2   | DIP-40 | CPU, 8-bit, 16 I/O, 5MHz            | 5.49   | 4.99   | 4.49   |
| 52100    | 8086-2     | DIP-40 | CPU, 8-bit, 32 I/O, 8MHz            | 1.95   | 1.75   | 1.59   |
| 52142    | 8088       | DIP-40 | CPU, 8-bit, 16 I/O, 5MHz            | 2.49   | 2.25   | 1.99   |
| 52169    | 8088-2     | DIP-40 | CPU, 8-bit, 16 I/O, 8MHz            | 5.95   | 5.39   | 4.85   |
| 34358    | UPD70108-8 | DIP-40 | CPU, 8-bit, 16 I/O, 8MHz            | 10.99  | 9.34   | 7.01   |
| 52290    | 8155       | DIP-40 | I/O port timer, 2K-bit, 3MHz        | 4.49   | 3.82   | 2.86   |
| 52302    | 8155-2     | DIP-40 | Static MOS RAM, 2K-bit, 3 I/O, 5MHz | 5.95   | 5.39   | 4.85   |
| 52468    | 8212       | DIP-24 | I/O port timer, 8-bit, 3MHz         | 6.49   | 5.99   | 5.49   |
| 52484    | 8216       | DIP-16 | Bi-directional bus driver           | 3.95   | 3.36   | 2.52   |
| 52492    | 8224       | DIP-16 | Clock generator/driver              | 2.95   | 2.49   | 2.25   |
| 52513    | 8228       | DIP-28 | System contr./bus driver            | 3.69   | 3.19   | 2.36   |
| 52581    | 8243       | DIP-24 | I/O expander                        | 5.49   | 4.94   | 3.71   |
| 52610    | 8250A      | DIP-40 | UART                                | 4.25   | 3.60   | 2.70   |
| 52644    | 8251       | DIP-28 | USART                               | 2.99   | 2.69   | 2.39   |
| 52652    | 8251A      | DIP-28 | USART                               | 3.99   | 3.69   | 3.39   |
| 52679    | 8253       | DIP-24 | Prog. interval timer, 2MHz          | 3.19   | 2.89   | 2.59   |
| 52687    | 8253-5     | DIP-24 | Prog. interval timer, 2MHz          | 4.99   | 4.49   | 3.99   |
| 52708    | 8254       | DIP-24 | Prog. interval timer, 8MHz          | 4.49   | 3.99   | 3.59   |
| 52716    | 8254-2     | DIP-24 | Prog. interval timer, 8MHz          | 7.35   | 6.25   | 4.69   |
| 52724    | 8255       | DIP-40 | CPU peripheral, 2MHz                | 4.49   | 3.99   | 3.49   |
| 52732    | 8255A-5    | DIP-40 | CPU peripheral, 5MHz                | 4.89   | 4.39   | 3.05   |
| 291805   | 8255AC-5   | DIP-40 | CPU peripheral, 4MHz                | 4.89   | 4.39   | 2.89   |
| 52759    | 8256       | DIP-40 | UART                                | 19.99  | 17.99  | 16.19  |
| 52775    | 8259       | DIP-28 | Prog. interrupt controller          | 1.75   | 1.55   | 1.45   |
| 52783    | 8259-5     | DIP-28 | Prog. interrupt controller          | 2.49   | 2.19   | 1.99   |
| 52839    | 8279       | DIP-40 | CPU peripheral, 5MHz                | 12.99  | 11.99  | 10.99  |
| 52847    | 8279-5     | DIP-40 | CPU peripheral, 5MHz                | 12.95  | 11.69  | 10.49  |
| 52855    | 8282       | DIP-20 | Octal latch bus driver              | 5.35   | 4.55   | 3.41   |
| 52871    | 8284A      | DIP-18 | Clock generator/driver, 8MHz        | 4.69   | 4.19   | 3.77   |
| 52898    | 8286       | DIP-20 | Octal bus transceiver               | 3.95   | 3.59   | 3.25   |
| 52901    | 8287       | DIP-20 | Octal bus transceiver               | 9.89   | 8.99   | 8.09   |
| 699624   | P82B96TD   | SOIC-8 | Dual bidirectional bus buffer       | 3.15   | 3.10   | 2.80   |
| 53006    | 8741       | DIP-40 | CPU peripheral, 5MHz                | 6.79   | 6.11   | 5.51   |
| 53014    | 8742       | DIP-40 | MCU, 8-bit, 18 I/O, 12MHz           | 8.45   | 7.20   | 6.35   |
| 53022    | 8748       | DIP-40 | CPU, 8-bit, 27 I/O, 11MHz           | 13.95  | 12.56  | 11.11  |
| 53031    | 8748H      | DIP-40 | CPU, 8-bit, 27 I/O, 11MHz           | 16.25  | 14.78  | 13.25  |
| 53057    | 8749H      | DIP-40 | CPU, 8-bit, 27 I/O, 11MHz           | 23.45  | 19.88  | 16.27  |
| 53081    | 8751H      | DIP-40 | MCU, 8-bit, 32 I/O, 12MHz           | 24.95  | 20.25  | 18.23  |
| 53090    | 8755       | DIP-40 | EPROM with I/O                      | 8.95   | 8.09   | 7.29   |
| 699616   | P82B715TD  | DIP-8  | I <sup>2</sup> C bus extender       | 2.99   | 2.91   | 2.82   |

\* 8049 (ROM not available for use) Tie pin 7 high to bypass the internal ROM to convert 8049 to 8039

\*\* Tie pin 31 low to bypass the internal ROM ♣ Pull = Extra Savings ♠ Refurbished = Backed by Jameco



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# Microcontrollers, Voice Chips & BASIC Stamp Controllers

Color Code Legend  
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## NXP / PHILIPS 8000 CMOS

For more NXP 8000 CMOS  
visit [www.Jameco.com](http://www.Jameco.com)

| Part No. | Cross Ref.      | Pkg.    | Description                          | 1      | 10     | 100    |
|----------|-----------------|---------|--------------------------------------|--------|--------|--------|
| 699544   | P80C31SBAA      | PLCC-44 | MCU, 8-bit, 32 I/O, 16MHz            | \$1.69 | \$1.64 | \$1.59 |
| 699552   | P80C31SBPN      | DIP-40  | MCU, 8-bit, 32 I/O, 16MHz            | 2.25   | 2.18   | 1.85   |
| 699561   | P80C32SBAA      | PLCC-44 | MCU, 8-bit, 32 I/O, 16MHz            | 2.15   | 1.84   | 1.52   |
| 699579   | P80C32SBPN      | DIP-40  | MCU, 8-bit, 32 I/O, 16MHz            | 2.69   | 2.62   | 2.54   |
| 699587   | P80C32UBAA      | PLCC-44 | MCU, 8-bit, 32 I/O, 33MHz            | 2.15   | 2.09   | 2.03   |
| 699595   | P80C52EBA       | PLCC-68 | MCU, 8-bit, 16MHz, 10-bit A/D        | 9.85   | 9.54   | 9.25   |
| 699608   | P80C52IBA       | PLCC-68 | MCU, 8-bit, 24MHz, 10-bit A/D        | 10.25  | 9.92   | 9.63   |
| 699632   | P87C51FA-4N     | DIP-40  | MCU, 8-bit, four 8-bit I/O, 16MHz    | 6.09   | 5.95   | 5.60   |
| 699641   | P87C51RB-4A     | PLCC-44 | MCU, 8-bit, four 8-bit I/O, 16MHz    | 5.41   | 5.25   | 4.27   |
| 699659   | P87C51SBAA      | PLCC-44 | MCU, 8-bit, 32 I/O, 16MHz            | 2.69   | 2.50   | 2.11   |
| 699667   | P87C51SBPN      | DIP-40  | MCU, 8-bit, 32 I/O, 16MHz            | 2.85   | 2.70   | 2.50   |
| 699675   | P87C52SBAA      | PLCC-44 | MCU, 8-bit, 32 I/O, 16MHz            | 3.19   | 3.01   | 2.52   |
| 699683   | P87C52FAA       | PLCC-44 | MCU, 8-bit, 32 I/O, 16MHz            | 3.49   | 3.25   | 2.76   |
| 699691   | P87C52UBAA      | PLCC-44 | MCU, 8-bit, 32 I/O, 33MHz            | 3.19   | 2.57   | 2.52   |
| 699704   | P87C52UBPN      | DIP-40  | MCU, 8-bit, 32 I/O, 33MHz            | 5.49   | 5.09   | 4.94   |
| 699712   | P87C52SBAA      | PLCC-68 | MCU, 8-bit, five 8-bit I/O, 18MHz    | 12.29  | 11.92  | 11.58  |
| 699721   | P87LPC74BD      | SOIC-20 | MCU, low-power, 4kbyte OTP           | 2.25   | 2.17   | 1.83   |
| 699739   | P89C51RD2BA01   | PLCC-44 | MCU, 8-bit, four 8-bit I/O, 20/33MHz | 7.59   | 7.38   | 7.17   |
| 699747   | P89C51RD2BD01   | LQFP-44 | MCU, 8-bit, four 8-bit I/O, 20/33MHz | 7.39   | 7.15   | 6.95   |
| 699755   | P89C660HBA      | PLCC-44 | MCU, 8-bit, four 8-bit I/O, 20/33MHz | 7.79   | 7.56   | 7.34   |
| 699763   | P89C664HBD      | LQFP-44 | MCU, 8-bit, four 8-bit I/O, 20/33MHz | 9.85   | 9.55   | 9.27   |
| 699771   | P89LPC932A1FA-S | PLCC-28 | MCU, 8-bit, 18MHz, 8k flash          | 2.95   | 2.84   | 2.76   |

## 8000 CMOS

| Part No. | Cross Ref. | Pkg.   | Description                  | 1      | 10     | 100    |
|----------|------------|--------|------------------------------|--------|--------|--------|
| 51676    | 80C31      | DIP-40 | MCU, 8-bit, 32 I/O, 24MHz    | \$2.99 | \$2.42 | \$1.45 |
| 108804   | 80C32-1    | DIP-40 | MCU, 8-bit, 32 I/O, 12MHz    | 4.49   | 3.85   | 2.89   |
| 51692    | 80C39      | DIP-40 | MCU, 8-bit, 27 I/O, 11MHz    | 3.59   | 3.23   | 2.91   |
| 125647   | 80C52BASIC | DIP-40 | MCU, 8-bit, 32 I/O, 12MHz    | 32.75  | 29.47  | 26.51  |
| 51705    | 80C85A-2   | DIP-40 | CPU, 8-bit, 16 I/O, 5MHz     | 7.25   | 6.55   | 5.85   |
| 52193    | 81C55      | DIP-40 | I/O port timer, 2K-bit, 3MHz | 4.49   | 3.59   | 3.19   |
| 52370    | 82C51A     | DIP-28 | USART                        | 3.85   | 3.40   | 2.95   |
| 52388    | 82C53-5    | DIP-24 | Prog. interval timer, 8MHz   | 4.25   | 3.60   | 2.75   |
| 52396    | 82C54      | DIP-24 | Prog. interval timer, 8MHz   | 3.95   | 3.05   | 2.60   |
| 52409    | 82C54-2    | DIP-24 | Prog. interval timer, 10MHz  | 4.49   | 4.05   | 3.59   |
| 52417    | 82C55A     | DIP-40 | CPU peripheral, 5MHz         | 4.99   | 4.49   | 3.99   |
| 52425    | 82C55A-5   | DIP-40 | CPU peripheral, 5MHz         | 4.49   | 3.99   | 3.49   |
| 52978    | 87C51      | DIP-40 | MCU, 8-bit, 32 I/O, 33MHz    | 21.99  | 19.79  | 17.49  |
| 196120   | P87C51     | DIP-40 | MCU, 8-bit, 32 I/O, 24MHz    | 5.09   | 4.62   | 4.20   |

♣ Pull = Extra Savings ✦ Refurbished = Backed by Jameco

## Voice Chips

### Single-Chip Voice Record/Playback Devices

- Manual switch or microprocessor controllable
- Directly cascadable for longer durations
- Fully addressable to handle multiple messages
- On-chip automatic gain control (AGC) and clock source
- Typical 100k record cycles, 1µA standby current and 100 year message retention
- Single voltage operation: +5V (4.5V to 5.5V operating range)
- Playback can be edge or level-activated
- 28-pin DIP



| Part No. | Product No. | Description                      | 1      | 10     | 50     |
|----------|-------------|----------------------------------|--------|--------|--------|
| 141671   | ISD1110P    | Voice record/playback (10 sec.)  | \$5.99 | \$5.75 | \$5.50 |
| 107334   | ISD1420P    | Voice record/playback (20 sec.)  | 6.85   | 5.75   | 4.65   |
| 120643   | ISD2560P    | Voice record/playback (60 sec.)  | 10.49  | 9.49   | 7.65   |
| 120660   | ISD2590P    | Voice record/playback (90 sec.)  | 11.75  | 9.99   | 7.49   |
| 141655   | ISD25120P   | Voice record/playback (120 sec.) | 11.39  | 9.29   | 7.75   |

## 80C52-Basic Microcontroller

A custom-masked microcontroller with a full-featured 8k-byte ROM-resident BASIC-52 interpreter. 256 x 8-bit RAM.

- Full BASIC interpreter in ROM on a single chip
- Operates DC to 12MHz
- "Stand-alone" software development
- On-chip oscillator and clock circuit
- Interrupts can be handled by BASIC or Assembly Language

| Part No. | Product No. | Description                                | 1       | 10      | 100     |
|----------|-------------|--|---------|---------|---------|
| 125647   | 80C52BASIC  | 40-pin CPU 8-bit CMOS w/ BASIC interpreter | \$32.75 | \$29.47 | \$26.51 |

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product ✦ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

## PARALLAX 50MIPS SX Microcontroller

| Part No. | Parallax No. | Description                      | 1      | 10     | 100    |
|----------|--------------|----------------------------------|--------|--------|--------|
| 162931   | SX28AC/DP    | DIP-28 50MIPS SX microcontroller | \$4.99 | \$4.89 | \$4.79 |

## PARALLAX BASIC Stamp

They are ideal for controller apps including robotics, radio-controlled interfaces of a digital camera, industrial pallet stackers, health monitoring systems, and much more. The BS2-IC has 16 I/O lines. Each can be connected directly to buttons, LEDs, registers, and many other TTL level devices. It allows you to store data in the EEPROM before downloading a BASIC program.

- EEPROM: 2048 bytes
- Microcontroller: PIC16C57
- # of I/O pins: 16 + 2 serial
- Volts required: 5-15VDC
- Package: 24-pin DIP
- Cur. draw @ 5V: 8mA run/100µA
- Program speed: 4000/sec.
- RAM: 32 bytes
- Size: 1.2"L x 0.6"W



See page 255 for  
Serial LCD Modules

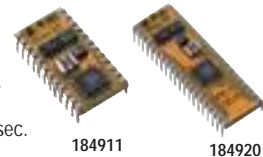
Includes: Embedded BASIC plus instruction sets; basic interpreter, EEPROM (non-volatile), a resonator and 5V regulator

| Part No. | Parallax No. | 1       | 10      |
|----------|--------------|---------|---------|
| 130892   | BS2-IC       | \$48.95 | \$43.95 |

## PARALLAX BASIC Stamp 2P Modules

In addition to the BS2-SX (pg 8) features, these modules include commands for HD44780 compatible LCDs, Dallas Semiconductor 1-wire and Philips I2C parts.

- Voltage requirements: 5-12VDC
- Program execution speed: 12,000 instructions/sec.
- RAM size: 38 bytes (12 I/O, 26 variable)
- EEPROM program size: 2k x 8, 4,000 instructions
- Current draw @ 5V: 40mA run; 400µA sleep
- Scratch pad RAM: 128 bytes



| Part No. | Parallax No. | No. of I/O Pins | 1       | 10      |
|----------|--------------|-----------------|---------|---------|
| 184911   | BS2P24-IC    | 16 + 2 serial   | \$78.95 | \$70.95 |
| 184920   | BS2P40-IC    | 32 + 2 serial   | 87.95   | 79.95   |

## PARALLAX 50MHz BASIC Stamp 2SX Module

High-speed version of BS2-IC.

- EEPROM program size: 2k x 8, 4,000 instructions
- Program execution speed: 10,000 instructions/sec.
- Current draw @ 5V: 60mA run; 200µA sleep
- Volts required: 5-12 VDC
- Scratch pad RAM: 64 bytes
- RAM size: 32 bytes
- Microcontroller: Ubicom SX28AC



| Part No. | Parallax No. | No. of I/O Pins | 1       | 10      |
|----------|--------------|-----------------|---------|---------|
| 159775   | BS2SX-IC     | 16 + 2 serial   | \$58.95 | \$52.95 |

## RABBIT Multi-Port Serial to Ethernet Kit

The Rabbit Serial-to-Ethernet Kit provides the hardware and software necessary for sensors and other serial devices to communicate via a LAN or other network. This kit allows you to simultaneously connect several serial devices to a network.

This kit also includes a prototyping board, Dynamic C® development environment including a royalty-free TCP/IP stack with source code, sample applications, temperature sensor demo-board, required cables, and assorted accessories.

### Features

- Serial to ethernet applications for: digital voltmeter and temperature sensor reader and binary and hexadecimal ASCII
- Royalty-free TCP/IP stack with source code
- Configuration menu system

### Design Advantages

- Minimal ethernet experience required
- 3 step setup
- Software compatible with other Rabbit-based products

| Part No. | Description                            | Wt. (lbs.) | Price    |
|----------|--|------------|----------|
| 321656   | Multi-Port serial to ethernet app. kit | 2.0        | \$375.25 |





## The Rabbit 3000 Microprocessor


The new Rabbit 3000 is a high-performance, low-EMI microprocessor designed specifically for embedded control, communications, and Ethernet connectivity. Extensive integrated features and glueless architecture facilitate rapid hardware design, while a C-friendly instruction set promotes efficient development of

even the most complex applications. All development kits come complete with microprocessor core module, prototyping board, Dynamic C® development software with documentation on CD-ROM, serial cable for programming and debugging, "Getting Started" manual and AC adapter.

For detailed specifications, visit [www.Jameco.com/prod/Rabbit](http://www.Jameco.com/prod/Rabbit)

### RCM3000 & 3100 General Purpose Development Kits

The RCM3000 & RCM3100 are ideal options for designers who want to rapidly develop and implement embedded systems with or without integrated Ethernet connectivity.

| Part No. | Description  | 320733 | Price    |
|----------|--|--------|----------|
| 320733   | RCM3000 ethernet enabled kit  |        | \$284.05 |
| 320741   | RCM3100 general purpose kit   |        | \$226.95 |

### RCM3400 Development Kit










The RCM3400 is based on the low-EMI Rabbit 3000 CPU running at 29.4MHz, with 512kB Flash and 512kB SRAM on board. The development board features a 10/100Base-T Ethernet connection and can be used as a reference design in conjunction with Dynamic C®'s royalty-free TCP/IP software libraries included in the development kit. Additional features include 5 serial ports and 8 analog inputs with programmable gain—all in an extremely small footprint!



| Part No. | Description  | Price    |
|----------|--|----------|
| 321031   | RCM3400 analog development kit  | \$378.95 |

### RCM3200 10/100Base-T Development Kit

The RCM3200 RabbitCore™ microprocessor core module is a great choice for designers who want to rapidly implement embedded systems that require a fully integrated 10/100Base-T Ethernet connection. Additional features include a battery-backed real-time clock, glueless I/O interfacing, slave port and an alternate I/O bus.

| Part No. | Description  | Price    |
|----------|--|----------|
| 320979   | RCM3200 ethernet enabled kit   | \$331.55 |

| Model No.           | RCM3000   | RCM3100   | RCM3200   | RCM3300   | RCM3360   | RCM3400  | RCM3600   | RCM3700   | RCM3720   |
|---------------------|---|---|---|---|---|--|---|---|---|
| Jameco Part No.     | 320733  | 320741  | 320979  | 321082  | 321613  | 321031   | 321058  | 321074  | 321630  |
| CPU Speed           | 29.4MHz    | 29.4MHz  | 44.2MHz  | 44.2MHz                          | 44.2MHz                                    | 29.4MHz   | 22.1MHz    | 22.1MHz  | 22.1MHz  |
| Ethernet            | 10Base-T, RJ-45, 2 LEDs   | None  | 10/100Base-T, RJ-45, 3 LEDs   | 10/100Base-T, RJ-45, 3 LEDs   | 10/100Base-T, RJ-45, 3 LEDs   | 10/100Base-T, MAC ID installed   | None  | 10Base-T, RJ-45, 2 LEDs   | 10Base-T, RJ-45, 2 LEDs   |
| Flash Memory        | 512k (2 x 256kB)  | 512k (2 x 256kB)  | 512kB   | 512kB   | 512kB   | 512kB  | 512kB   | 512kB   | 512kB   |
| SRAM                | 512kB   | 512kB   | 512kB program + 256kB data  | 512kB program + 512kB data  | 512kB program + 512kB data  | 512kB  | 512kB   | 512kB   | 256kB   |
| Extended Memory     | None  | None  | None  | 8MB Serial Flash  | 16MB NAND Flash Chip, xD Removable Flash Memory   | None   | None  | 1MB Serial Flash  | 1MB Serial Flash  |
| General Purpose I/O | 49 digital: 43 configurable, 3 fixed inputs, 3 fixed outputs  | 54 digital: 46 configurable, 4 fixed inputs, 4 fixed outputs                                | 52 digital: 44 configurable, 4 fixed inputs, 4 fixed outputs                                | 49 parallel digital: 43 configurable, 3 fixed inputs, 3 fixed outputs   | 52 parallel digital: 44 configurable, 4 fixed inputs, 4 fixed outputs   | 47 digital: 41 configurable, 3 fixed inputs, 3 fixed outputs   | 33 parallel digital: 31 configurable, 2 fixed inputs  | 33 parallel digital: 31 configurable, 2 fixed inputs  | 33 parallel digital: 31 configurable, 2 fixed inputs  |
| Analog Inputs       | None  | None  | None  | None  | None  | 8-ch single-ended (11-bit) or 4-ch differential  | None  | None  | None  |
| Additional Inputs   | 2 Startup mode, Reset   | 2 Startup mode, Reset   | 2 Startup mode, Reset   | 2 Startup mode, Reset   | 2 Startup mode, Reset   | 2 Startup mode, Reset In, CONVERT  | Reset   | Reset   | None  |
| Additional Outputs  | Status, Reset   | Status, Reset   | Status, Reset   | Status, Reset   | Status, Reset   | Status, Reset, BREF  | None  | None  | None  |
| External I/O        | 6 shared w/ I/O, 8 data, plus I/O Rd, I/O Wr  | 6 shared w/ I/O, 8 data, plus I/O Rd, I/O Wr  | 6 shared w/ I/O, 8 data, plus I/O Rd, I/O Wr  | 5 shared w/ I/O, 8 data, plus I/O Rd, I/O Wr  | 5 shared w/ I/O, 8 data, plus I/O Rd, I/O Wr  | 6 shared w/ I/O, 8 data, plus I/O Rd, I/O Wr   | 5 shared w/ I/O, 8 data, plus I/O Rd, I/O Wr  | 5 shared w/ I/O, 8 data, plus I/O Rd, I/O Wr  | 5 shared w/ I/O, 8 data, plus I/O Rd, I/O Wr  |
| Serial Ports        | Six 3.3V CMOS-compatible: configurable as asynchronous (with IrDA), 4 configurable as clocked (SPI), 2 configurable as SDLC/HDLC  |   |   | Five 3.3V CMOS-compat. config. as asynch. (w/IrDA), 3 config. clocked (SPI), 2 config. SDLC/HDLC, 1 asynch. (prog.) | Six 3.3V CMOS-compat. config. as asynch. (w/IrDA), 4 config. clocked (SPI), 2 config. SDLC/HDLC, 1 asynch. dedicated. (prog.) | 5 CMOS-compatible: 4 configurable as asynch. (w/IrDA), 3 as clocked serial (SPI), 2 as SDLC/HDLC w/ IrDA, 1 asynch. serial port support for MIR/SIR IrDA transceiver | Four 3.3V CMOS-compatible: 4 configurable as asynchronous (with IrDA), 3 as clocked serial (SPI) and 1 as SDLC/HDLC (with IrDA) or 1 SPI and 2SDLC/HDLC, 1 asynchronous serial port (programming) |   |   |
| Power               | 3.15 - 3.45VDC @ 150mA  | 3.15 - 3.45VDC @ 75mA   | 3.15 - 3.45VDC @ 150mA  | 3.15 - 3.45VDC @ 150mA  | 3.15 - 3.45VDC @ 150mA  | 3.0-3.45VDC @ 97mA   | 4.75-12.6VDC @ 60mA   | 4.75-5.25VDC @ 100mA  | 4.75-5.25VDC @ 100mA  |
| Board Size          | 2.73" x 1.85" x 0.86"   | 1.85" x 1.65" x 0.55"   | 2.73" x 1.85" x 0.86"   | 2.73" x 1.85" x 0.86"   | 2.73" x 1.85" x 0.86"   | 1.37" x 1.16" x 0.31"  | 2.10" x 1.20" x 0.62"   | 2.95" x 1.20" x 0.85"   | 2.95" x 1.20" x 0.85"   |
| Connectors          | Two 2 x 17.2mm IDC headers  | Two 2 x 17.2mm IDC headers  | Two 2 x 17.2mm IDC headers  | Two 2 x 17.2mm IDC headers  | Two 2 x 17.2mm IDC headers  | Two 2 x 17 (1.27mm)  | One 2 x 20, 0.10" IDC headers   | One 2 x 20, 0.10" IDC headers   | One 2 x 20, 0.10" IDC headers   |
| Included            | RabbitCore™ module, development board w/ prototyping area, Dynamic C development system and documentation on CD-ROM, serial cable, "Getting Started" manual, and AC adapter |   |   |   |   |  |   |   |   |
| Price               | \$284.05  | \$226.95  | \$331.55  | \$240.55  | \$378.95  | \$378.95   | \$226.95  | \$283.95  | \$188.95  |

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)



## Wi-Fi Application Kit

Integrating Wi-Fi (IEEE 802.11b) with a RabbitCore™ Development Kit, embedded system integrators can now enable a wireless embedded system.

Includes a Linksys Wi-Fi card, RCM3100 microprocessor core module, prototyping board, Dynamic C® development system and complete documentation on CD-ROM, serial cable for programming and debugging, 10-pin DB15 Conversion Cable, manuals and AC adapter (U.S./Canada only).



### Applications

- Wireless automation and control
- Convenient data and event logging
- Instrumentation monitoring

| Part No. | Description           | Wt. (lbs.) | Price    |
|----------|-----------------------|------------|----------|
| 321681   | Wi-Fi application kit | 2.0        | \$568.95 |



## GSM/GPRS and M2M Application Kits

This kit provides all the tools necessary to sample and develop applications that combine a Rabbit-based control device with a GSM/GPRS modem. The libraries and sample programs allow for a device connected to the cellular network to send SMS (text) messages to a RabbitCore Module (RCM) that can interpret messages as commands and in turn execute control functions.



321584

| Part No. | Description                                   | Wt. (lbs.) | Price    |
|----------|---|------------|----------|
| 321584   | GSM/GPRS app. kit w/ Enfora modem             | 2.0        | \$616.55 |
| 321197   | Machine to machine (M2K) kit w/ Wavecom modem | 2.0        | 663.95   |

## Ethernet Starter Kit



This starter kit is ideal for hobbyists, students and inventors who want to learn about C programming, TCP/IP programming and interfacing electronic devices with microprocessors. Fun and useful application projects take you step-by-step through hardware and software development. Create new applications such as a WAV file player, DC and stepper motor controller, GPS clock, and much more.

- Current draw: 43mA typ. @ 12V, 16mA typ. @ 40V
- Input volt.: 24-28VAC, 7-40VDC

**Hardware Includes:** RCM3700 Rabbit Microprocessor Core Module plus proto and breadboards (6.5" x 2.2" w), 12VDC @ 1A power supply, serial cable, 2 Ethernet cables, 8Ω 400mW speaker, wiring kit, 10kΩ thermistor, 0.1μF capacitor, 10kΩ potentiometer, headers, and standoffs

**Software Includes:** Dynamic C lite, libraries and samples, as well as royalty free TCP/IP protocol stack.



| Part No. | Description          | Price    |
|----------|----------------------|----------|
| 355004   | Ethernet starter kit | \$141.55 |

## Microprocessor Starter Kit



This Microprocessor Starter Kit is designed to work with several different forms of applications via system control: commands and feedback, data acquisition, and custom hardware setups specific to user requirements. Whether you are an embedded systems expert, or an electronics novice, Imagine Tools offers an educational community devoted to bringing as much value to a kit purchase as possible by offering free downloadable products, application ideas, and support. The microprocessor starter kit is ideal for hobbyists, enthusiasts, and entrepreneurs seeking to create a killer product and/or application.

- 256k FLASH/128k SRAM
- Input voltage: 24-40VAC, 7-40VDC
- 4 serial ports
- 33 digital I/O ports
- Current draw: 43mA typ. @ 12V, 16mA typ. @ 40V

**Kit Includes:** RCM3610 module with Rabbit 300A microprocessor, starter board, software CD, hardware, and power supply.



| Part No. | Description                | Price   |
|----------|----------------------------|---------|
| 354992   | Microprocessor starter kit | \$94.05 |

## EPROM

| Part No. | Cross Ref. | Pkg.   | Config.  | Description | 1      | 10     | 100    |
|----------|------------|--------|----------|-------------|--------|--------|--------|
| 39909    | 2708       | DIP-24 | 1k x 8   | 450ns, 5V   | \$4.99 | \$4.29 | \$3.19 |
| 33611    | TMS2716    | DIP-24 | 2k x 8   | 450ns, 5V   | 2.25   | 1.99   | 1.79   |
| 40002    | 2716       | DIP-24 | 2k x 8   | 450ns, 5V   | 4.09   | 3.69   | 3.29   |
| 39706    | 27C16      | DIP-24 | 2k x 8   | 450ns, 5V   | 6.99   | 5.99   | 4.99   |
| 308662   | 2716A-2    | DIP-24 | 2k x 8   | 200ns, 5V   | 6.09   | 5.48   | 5.03   |
| 40011    | 2716-1     | DIP-24 | 2k x 8   | 350ns, 5V   | 6.49   | 5.89   | 5.39   |
| 265931   | 27C16-200  | DIP-24 | 2k x 8   | 200ns, 5V   | 3.99   | 3.39   | 2.54   |
| 265965   | 27C16-150  | DIP-24 | 2k x 8   | 150ns, 5V   | 6.15   | 5.20   | 3.90   |
| 40096    | 2732       | DIP-24 | 4k x 8   | 450ns, 5V   | 6.49   | 5.49   | 4.19   |
| 39765    | 27C32      | DIP-24 | 4k x 8   | 450ns, 5V   | 5.49   | 4.95   | 4.45   |
| 40133    | 2732A-45   | DIP-24 | 4k x 8   | 450ns, 5V   | 3.99   | 3.69   | 3.29   |
| 33591    | TMS2532    | DIP-24 | 4k x 8   | 450ns, 5V   | 3.99   | 3.59   | 3.19   |
| 114876   | 2732B      | DIP-24 | 4k x 8   | 450ns, 5V   | 4.19   | 3.79   | 3.39   |
| 40125    | 2732A-25   | DIP-24 | 4k x 8   | 250ns, 5V   | 4.99   | 4.49   | 3.99   |
| 40109    | 2732A-20   | DIP-24 | 4k x 8   | 200ns, 5V   | 6.49   | 5.99   | 5.49   |
| 265990   | 27C32-200  | DIP-24 | 4k x 8   | 200ns, 5V   | 5.99   | 4.99   | 3.99   |
| 266001   | 27C32-150  | DIP-24 | 4k x 8   | 150ns, 5V   | 6.99   | 5.99   | 4.99   |
| 40205    | 2764-25    | DIP-28 | 8k x 8   | 250ns, 5V   | 4.75   | 4.30   | 3.85   |
| 40248    | 2764A-25   | DIP-28 | 8k x 8   | 250ns, 5V   | 3.99   | 3.69   | 3.09   |
| 39845    | 27C64-25   | DIP-28 | 8k x 8   | 250ns, 5V   | 4.05   | 3.65   | 3.40   |
| 40192    | 2764-20    | DIP-28 | 8k x 8   | 200ns, 5V   | 5.29   | 4.79   | 4.29   |
| 40230    | 2764A-20   | DIP-28 | 8k x 8   | 200ns, 5V   | 4.49   | 4.09   | 3.69   |
| 74608    | 27C64-20   | DIP-28 | 8k x 8   | 200ns, 5V   | 4.15   | 3.60   | 3.44   |
| 39829    | 27C64-15   | DIP-28 | 8k x 8   | 150ns, 5V   | 3.95   | 3.63   | 3.10   |
| 105304   | 27C64-12   | DIP-28 | 8k x 8   | 120ns, 5V   | 3.29   | 2.98   | 2.71   |
| 266036   | 27C64-100  | DIP-28 | 8k x 8   | 100ns, 5V   | 4.09   | 3.59   | 2.69   |
| 266044   | 27C64-70   | DIP-28 | 8k x 8   | 70ns, 5V    | 4.85   | 4.12   | 3.70   |
| 39933    | 27128-25   | DIP-28 | 16k x 8  | 250ns, 5V   | 4.29   | 3.99   | 3.49   |
| 39984    | 27128A-25  | DIP-28 | 16k x 8  | 250ns, 5V   | 4.49   | 4.09   | 3.69   |
| 39685    | 27C128-25  | DIP-28 | 16k x 8  | 250ns, 5V   | 3.99   | 3.59   | 3.29   |
| 39968    | 27128A-20  | DIP-28 | 16k x 8  | 200ns, 5V   | 4.25   | 3.75   | 3.40   |
| 101101   | 27C128-20  | DIP-28 | 16k x 8  | 200ns, 5V   | 4.39   | 3.95   | 3.56   |
| 39950    | 27128A-15  | DIP-28 | 16k x 8  | 150ns, 5V   | 4.05   | 3.60   | 3.25   |
| 39677    | 27C128-15  | DIP-28 | 16k x 8  | 150ns, 5V   | 4.29   | 3.89   | 3.49   |
| 87935    | 27C128-12  | DIP-28 | 16k x 8  | 120ns, 5V   | 4.45   | 3.78   | 2.84   |
| 266061   | 27C128-100 | DIP-28 | 16k x 8  | 100ns, 5V   | 4.39   | 3.86   | 3.50   |
| 149665   | 27C128-70  | DIP-28 | 16k x 8  | 70ns, 5V    | 4.89   | 4.16   | 3.12   |
| 40061    | 27256-25   | DIP-28 | 32k x 8  | 250ns, 5V   | 3.19   | 2.99   | 2.69   |
| 39731    | 27C256-25  | DIP-28 | 32k x 8  | 250ns, 5V   | 3.19   | 2.99   | 2.69   |
| 40045    | 27256-20   | DIP-28 | 32k x 8  | 200ns, 5V   | 3.39   | 2.96   | 2.69   |
| 39722    | 27C256-20  | DIP-28 | 32k x 8  | 200ns, 5V   | 2.59   | 2.49   | 2.19   |
| 40037    | 27256-15   | DIP-28 | 32k x 8  | 150ns, 5V   | 3.45   | 3.25   | 2.93   |
| 39714    | 27C256-12  | DIP-28 | 32k x 8  | 150ns, 5V   | 2.09   | 1.79   | 1.59   |
| 65904    | 27C256-10  | DIP-28 | 32k x 8  | 120ns, 5V   | 2.09   | 1.99   | 1.79   |
| 112740   | 27C256-10  | DIP-28 | 32k x 8  | 100ns, 5V   | 2.95   | 2.80   | 2.35   |
| 140476   | 27C256-70  | DIP-28 | 32k x 8  | 70ns, 5V    | 3.39   | 3.19   | 2.99   |
| 266079   | 27C256-55  | DIP-28 | 32k x 8  | 55ns, 5V    | 4.99   | 4.24   | 3.18   |
| 40168    | 27512-25   | DIP-28 | 64k x 8  | 250ns, 5V   | 3.69   | 3.39   | 3.09   |
| 39802    | 27C512-25  | DIP-28 | 64k x 8  | 250ns, 5V   | 4.75   | 4.39   | 3.95   |
| 40150    | 27512-20   | DIP-28 | 64k x 8  | 200ns, 5V   | 2.69   | 2.39   | 2.19   |
| 39790    | 27C512-20  | DIP-28 | 64k x 8  | 200ns, 5V   | 3.09   | 2.89   | 2.59   |
| 39781    | 27C512-15  | DIP-28 | 64k x 8  | 150ns, 5V   | 2.09   | 1.99   | 1.79   |
| 39773    | 27C512-12  | DIP-28 | 64k x 8  | 120ns, 5V   | 2.15   | 2.04   | 1.69   |
| 131959   | 27C512-10  | DIP-28 | 64k x 8  | 100ns, 5V   | 3.05   | 2.89   | 2.16   |
| 175206   | 27C512-90  | DIP-28 | 64k x 8  | 90ns, 5V    | 1.85   | 1.76   | 1.66   |
| 203625   | 27C512-70  | DIP-28 | 64k x 8  | 70ns, 5V    | 2.69   | 2.37   | 1.79   |
| 203617   | 27C512-45  | DIP-28 | 64k x 8  | 45ns, 5V    | 2.69   | 2.25   | 1.79   |
| 118148   | 27C1024-15 | DIP-40 | 64k x 16 | 150ns, 5V   | 5.29   | 4.79   | 4.39   |
| 203641   | 27C1024-12 | DIP-40 | 64k x 16 | 120ns, 5V   | 6.15   | 5.23   | 3.92   |
| 39669    | 27C010-20  | DIP-32 | 128k x 8 | 200ns, 5V   | 2.09   | 1.85   | 1.52   |
| 39651    | 27C010-15  | DIP-32 | 128k x 8 | 150ns, 5V   | 2.09   | 1.90   | 1.75   |
| 74624    | 27C010-12  | DIP-32 | 128k x 8 | 120ns, 5V   | 1.99   | 1.90   | 1.70   |
| 79231    | 27C010-10  | DIP-32 | 128k x 8 | 100ns, 5V   | 2.09   | 1.75   | 1.60   |
| 137699   | 27C010-80  | DIP-32 | 128k x 8 | 80ns, 5V    | 5.15   | 4.61   | 4.09   |

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## EPROM (Continued)

| Part No. | Cross Ref. | Pkg.   | Config.   | Description | 1      | 10     | 100    |
|----------|------------|--------|-----------|-------------|--------|--------|--------|
| 146149   | 27C010-70  | DIP-32 | 128k x 8  | 70ns, 5V    | \$2.49 | \$2.29 | \$2.09 |
| 266095   | 27C010-55  | DIP-32 | 128k x 8  | 55ns, 5V    | 3.19   | 2.65   | 2.12   |
| 65699    | 27C020-15  | DIP-32 | 256k x 8  | 150ns, 5V   | 5.29   | 4.99   | 4.49   |
| 78852    | 27C020-12  | DIP-32 | 256k x 8  | 120ns, 5V   | 4.35   | 4.15   | 3.95   |
| 156267   | 27C020-10  | DIP-32 | 256k x 8  | 100ns, 5V   | 2.85   | 2.65   | 2.18   |
| 127933   | 27C4096-12 | DIP-40 | 256k x 16 | 120ns, 5V   | 6.95   | 5.95   | 5.35   |
| 85462    | 27C040-15  | DIP-32 | 512k x 8  | 150ns, 5V   | 5.05   | 4.35   | 3.75   |
| 102293   | 27C040-12  | DIP-32 | 512k x 8  | 120ns, 5V   | 5.05   | 4.35   | 3.75   |
| 111780   | 27C040-10  | DIP-32 | 512k x 8  | 100ns, 5V   | 5.05   | 4.35   | 3.75   |
| 203676   | 27C040-80  | DIP-32 | 512k x 8  | 80ns, 5V    | 5.29   | 5.24   | 5.19   |
| 266124   | 27C040-70  | DIP-32 | 512k x 8  | 70ns, 5V    | 5.05   | 4.35   | 3.75   |
| 266132   | 27C040-55  | DIP-32 | 512k x 8  | 55ns, 5V    | 5.05   | 4.75   | 3.56   |
| 140003   | 27C080-12  | DIP-32 | 1M x 8    | 120ns, 5V   | 10.05  | 9.50   | 8.50   |
| 265842   | 27C800-12  | DIP-42 | 1M x 8    | 120ns, 5V   | 12.59  | 11.59  | 10.59  |
| 156275   | 27C080-10  | DIP-32 | 1M x 8    | 100ns, 5V   | 11.05  | 10.20  | 7.65   |
| 203684   | 27C080-90  | DIP-32 | 1M x 8    | 90ns, 5V    | 10.85  | 10.15  | 7.61   |

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## ST EPROM

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| Part No. | Cross Ref.    | Pkg.   | Config.  | Description | 1      | 10     | 100    |
|----------|---------------|--------|----------|-------------|--------|--------|--------|
| 698331   | M27C64A-20F1  | DIP-28 | 8k x 8   | 200ns, 5V   | \$4.75 | \$4.22 | \$3.70 |
| 698349   | M27C64A-20F6  | DIP-28 | 8k x 8   | 200ns, 5V   | 3.69   | 3.59   | 3.49   |
| 698322   | M27C64A-15F1  | DIP-28 | 8k x 8   | 150ns, 5V   | 3.69   | 3.59   | 3.49   |
| 698111   | M27C256B-15F1 | DIP-28 | 32k x 8  | 150ns, 5V   | 2.29   | 2.11   | 2.04   |
| 698091   | M27C256B-12F1 | DIP-28 | 32k x 8  | 120ns, 5V   | 2.29   | 2.22   | 2.15   |
| 698103   | M27C256B-12F6 | DIP-28 | 32k x 8  | 120ns, 5V   | 3.05   | 2.62   | 2.04   |
| 698082   | M27C256B-10F1 | DIP-28 | 32k x 8  | 100ns, 5V   | 3.05   | 2.62   | 2.30   |
| 698138   | M27C256B-90F6 | DIP-28 | 32k x 8  | 90ns, 5V    | 3.05   | 2.62   | 2.30   |
| 698120   | M27C256B-70X1 | DIP-28 | 32k x 8  | 70ns, 5V    | 3.59   | 3.30   | 3.02   |
| 698218   | M27C512-10F1  | DIP-28 | 64k x 8  | 100ns, 5V   | 2.35   | 2.22   | 2.12   |
| 698306   | M27C512-90F1  | DIP-28 | 64k x 8  | 90ns, 5V    | 2.39   | 2.33   | 2.26   |
| 698314   | M27C512-90F6  | DIP-28 | 64k x 8  | 90ns, 5V    | 2.39   | 2.33   | 2.26   |
| 698277   | M27C512-70X1  | DIP-28 | 64k x 8  | 70ns, 5V    | 3.15   | 2.74   | 2.40   |
| 698251   | M27C512-45X1  | DIP-28 | 64k x 8  | 45ns, 5V    | 4.05   | 3.80   | 3.55   |
| 698234   | M27C512-15F1  | DIP-28 | 64k x 8  | 150ns, 5V   | 3.15   | 2.74   | 2.40   |
| 698242   | M27C512-15F6  | DIP-28 | 64k x 8  | 150ns, 5V   | 3.15   | 2.73   | 2.40   |
| 698226   | M27C512-12F1  | DIP-28 | 64k x 8  | 120ns, 5V   | 2.35   | 2.22   | 2.12   |
| 697987   | M27C1001-15F1 | DIP-32 | 128k x 8 | 150ns, 5V   | 3.99   | 3.73   | 3.46   |
| 697961   | M27C1001-12F1 | DIP-32 | 128k x 8 | 120ns, 5V   | 3.69   | 3.24   | 2.85   |
| 697979   | M27C1001-12F6 | DIP-32 | 128k x 8 | 120ns, 5V   | 3.79   | 3.43   | 3.08   |
| 697944   | M27C1001-10F1 | DIP-32 | 128k x 8 | 100ns, 5V   | 3.69   | 3.24   | 2.99   |
| 698007   | M27C1001-70F1 | DIP-32 | 128k x 8 | 70ns, 5V    | 3.75   | 3.24   | 2.84   |
| 697995   | M27C1001-45X1 | DIP-32 | 128k x 8 | 45ns, 5V    | 5.95   | 5.60   | 5.20   |
| 698058   | M27C2001-15F1 | DIP-32 | 256k x 8 | 150ns, 5V   | 5.25   | 4.75   | 4.23   |
| 698031   | M27C2001-12F1 | DIP-32 | 256k x 8 | 120ns, 5V   | 3.79   | 3.57   | 3.36   |
| 698040   | M27C2001-12F6 | DIP-32 | 256k x 8 | 120ns, 5V   | 4.05   | 3.99   | 3.80   |
| 698023   | M27C2001-10F1 | DIP-32 | 256k x 8 | 100ns, 5V   | 5.15   | 4.45   | 3.90   |
| 698066   | M27C2001-70X1 | DIP-32 | 256k x 8 | 70ns, 5V    | 8.15   | 7.62   | 7.09   |
| 698197   | M27C4002-10F1 | DIP-40 | 256k x 8 | 100ns, 5V   | 9.45   | 8.85   | 8.25   |
| 698200   | M27C4002-12F1 | DIP-40 | 256k x 8 | 120ns, 5V   | 9.45   | 8.85   | 8.25   |
| 698171   | M27C4001-15F1 | DIP-32 | 512k x 8 | 150ns, 5V   | 5.45   | 4.98   | 4.57   |
| 698154   | M27C4001-12F1 | DIP-32 | 512k x 8 | 120ns, 5V   | 5.89   | 5.40   | 4.98   |
| 698162   | M27C4001-12F6 | DIP-32 | 512k x 8 | 120ns, 5V   | 7.09   | 6.64   | 6.19   |
| 698146   | M27C4001-10F1 | DIP-32 | 512k x 8 | 100ns, 5V   | 5.89   | 5.40   | 4.98   |
| 698189   | M27C4001-80X1 | DIP-32 | 512k x 8 | 80ns, 5V    | 5.25   | 5.10   | 4.96   |
| 698357   | M27C801-100F1 | DIP-32 | 1M x 8   | 100ns, 5V   | 4.59   | 4.34   | 4.09   |

See EPROM programmers and erasers on pages 310, 311 &amp; 312

## EPROM Accessories

| Part No. | Cross Ref. | Description                                   | 1      | 5      |
|----------|------------|---|--------|--------|
| 13864    | CF2        | Conductive foam (12" x 24" x .25") hard black | \$9.29 | \$8.35 |
| 226309   | SUPERPRO-Z | EPROM Programmer, pg 310                      | 369.95 | 351.49 |
| 15712    | DE4        | 8-chip UV-EPROM eraser, pg 312                | 106.85 | 101.49 |



♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product

✦ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

Color Code Legend

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## OTP/PROM

| Part No. | Cross Ref.      | Pkg.    | Config.  | Description                       | 1               | 10     | 100    |
|----------|-----------------|---------|----------|-----------------------------------|-----------------|--------|--------|
| 48717    | 74S288          | DIP-16  | 32 x 8   | 256-bit, 5V, 25ns, PROM           | \$8.15          | \$7.03 | \$6.04 |
| 27844    | N82S23          | DIP-16  | 32 x 8   | 256-bit, 7V, 50ns, PROM           | 5.99            | 5.39   | 4.89   |
| 27764    | N82S123         | DIP-16  | 32 x 8   | 256-bit, 7V, 50ns, PROM           | 9.49            | 9.10   | 8.65   |
| 48696    | 74S287          | DIP-16  | 256 x 4  | 1-kbit, 5V, 30ns, PROM            | 11.95           | 10.75  | 9.69   |
| 48805    | 74S387          | DIP-16  | 256 x 4  | 1-kbit, 5V, 30ns, PROM            | 3.09            | 2.79   | 2.55   |
| 27772    | N82S126         | DIP-16  | 256 x 4  | 1-kbit, 5V, 50ns, PROM            | 9.35            | 8.15   | 7.10   |
| 27781    | N82S129         | DIP-16  | 256 x 4  | 1-kbit, 7V, 50ns, PROM            | 9.95            | 9.45   | 8.30   |
| 27799    | N82S131         | DIP-16  | 512 x 4  | 2-kbit, 7V, 50ns, PROM            | 7.99            | 6.99   | 5.99   |
| 27801    | N82S137         | DIP-18  | 1k x 4   | 4-kbit, 7V, 60ns, PROM            | 6.95            | 5.91   | 4.43   |
| 27810    | N82S181         | DIP-24  | 1k x 8   | 8-kbit, 7V, 70ns, PROM            | 6.59            | 5.59   | 4.89   |
| 27836    | N82S191         | DIP-24  | 2k x 8   | 16-kbit, 7V, 35ns, PROM           | 8.95            | 7.85   | 7.15   |
| 394978   | AT27C256R-45JUI | PLCC-32 | 32k x 8  | 256-kbit, 5V, 45ns, I-temp. OTP   | 2.59            | 2.29   | 1.99   |
| 394986   | AT27C256R-45PI  | DIP-28  | 32k x 8  | 256-kbit, 45ns OTP, LP, I-temp.   | 2.59            | 2.29   | 1.99   |
| 698074   | M27C256B-108A   | DIP-28  | 32k x 8  | 256-kbit, 5V, 100ns, OTP          | 1.35            | 1.23   | 1.11   |
| 266255   | 27C256-15       | PLCC-32 | 32k x 8  | 256-kbit, 5V, 150ns, OTP          | 1.15            | 1.05   | .91    |
| 266247   | 27C256-20       | PLCC-32 | 32k x 8  | 256-kbit, 5V, 200ns, OTP          | 1.59            | 1.43   | 1.07   |
| 395049   | AT27C512R-45PI  | DIP-28  | 64k x 8  | 512-kbit, 5V, 45ns, OTP           | 1.09            | .95    | .89    |
| 395081   | AT27C512R-70PI  | DIP-28  | 64k x 8  | 512-kbit, 5V, 70ns, I-temp., OTP  | 1.35            | 1.17   | .99    |
| 698269   | M27C512-70CS    | PLCC-32 | 64k x 8  | 512-kbit, 5V, 70ns, OTP           | 1.65            | 1.38   | 1.16   |
| 698285   | M27C512-90B6    | DIP-28  | 64k x 8  | 512-kbit, 5V, 90ns, OTP           | 1.65            | 1.38   | 1.16   |
| 698293   | M27C512-90C6    | PLCC-32 | 64k x 8  | 512-kbit, 5V, 90ns, OTP           | 1.55            | 1.38   | 1.16   |
| 203692   | 27C512-120PI    | DIP-28  | 64k x 8  | 512-kbit, 5V, 100ns, OTP          | 2.09            | 1.78   | 1.33   |
| 394652   | AT27BV1024-12M  | VSOP-40 | 64k x 16 | 1-Mbit, 2.7V, 120ns, I-temp., OTP | 5.55            | 4.97   | 4.35   |
| 394695   | AT27C010-70JUI  | PLCC-32 | 128k x 8 | 1-Mbit, 5V, 70ns, I-temp., OTP    | 2.15            | 1.83   | 1.37   |
| 394708   | AT27C010-70PI   | DIP-32  | 128k x 8 | 1-Mbit, 5V, 70ns, I-temp., OTP    | 1.25            | 1.09   | 1.05   |
| 203705   | 27C010-10OTP    | DIP-32  | 128k x 8 | 1-Mbit, 5V, 100ns OTP             | <del>2.29</del> | 1.18   | .88    |
| 698015   | M27C1001-10B1   | DIP-32  | 128k x 8 | 1-Mbit, 5V, 100ns, OTP            | 2.49            | 2.30   | 1.94   |
| 697952   | M27C1001-12B1   | DIP-32  | 128k x 8 | 1-Mbit, 5V, 120ns, OTP            | 2.29            | 2.06   | 1.84   |
| 394791   | AT27C020-90PI   | DIP-32  | 256k x 8 | 2-Mbit, 5V, 90ns, I-temp., OTP    | 1.65            | 1.48   | 1.41   |
| 697936   | M27C2001-10B1   | DIP-32  | 256k x 8 | 2-Mbit, 5V, 100ns, OTP            | 2.25            | 2.06   | 1.73   |
| 698365   | M27W401-80K6    | PLCC-32 | 512k x 8 | 2-Mbit, 5V, 100ns, OTP            | 4.05            | 3.53   | 3.10   |

## ATMEL EEPROM

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| Part No. | Cross Ref.      | Pkg.    | Config. | Description                  | 1                | 10   | 100  |
|----------|-----------------|---------|---------|------------------------------|------------------|------|------|
| 368649   | AT24C01A-10P-27 | DIP-8   | 128 x 8 | 2-wire serial, 2.7V, I-temp. | .28              | .20  | .19  |
| 843770   | AT24C01A-10P-27 | DIP-8   | 128 x 8 | 2-wire serial, 2.7V, I-temp. | .64              | .485 | .364 |
| 368711   | AT24C01A-10S-27 | SOIC-8  | 128 x 8 | 2-wire serial, 2.7V, I-temp. | <del>56.27</del> | .23  | .186 |
| 843817   | AT24C01A-10S-27 | SOIC-8  | 128 x 8 | 2-wire serial, 2.7V, I-temp. | .64              | .485 | .364 |
| 843850   | AT24C01A-10T-27 | TSSOP-8 | 128 x 8 | 2-wire serial, 2.7V, I-temp. | .85              | .67  | .496 |
| 844086   | AT24C11-10P-27  | DIP-8   | 128 x 8 | 2-wire serial, 2.7V, I-temp. | .59              | .451 | .338 |
| 844431   | AT25010A-10S-27 | SOIC-8  | 128 x 8 | SPI serial, 2.7V, I-temp.    | .80              | .61  | .46  |
| 368868   | AT24C02A-10S-27 | SOIC-8  | 256 x 8 | 2-wire serial, 2.7V, I-temp. | .62              | .527 | .395 |
| 762110   | AT24C02B-10P-14 | DIP-8   | 256 x 8 | 2-wire serial, 1.8V, I-temp. | .75              | .58  | .44  |
| 843884   | AT24C02A-10S-18 | SOIC-8  | 256 x 8 | 2-wire serial, 1.8V, I-temp. | .75              | .59  | .441 |
| 368913   | AT24C02A-10S-18 | SOIC-8  | 256 x 8 | 2-wire serial, 1.8V, I-temp. | .33              | .281 | .211 |
| 369617   | AT25020A-10P-27 | DIP-8   | 256 x 8 | SPI serial, 2.7V, I-temp.    | .56              | .476 | .357 |
| 844465   | AT25020A-10S-27 | SOIC-8  | 256 x 8 | SPI serial, 2.7V, I-temp.    | .80              | .61  | .46  |
| 762347   | AT25040A-10S-18 | SOIC-8  | 512 x 8 | SPI serial, 1.8V, I-temp.    | .88              | .67  | .501 |
| 844490   | AT25040A-10S-27 | SOIC-8  | 512 x 8 | SPI serial, 2.7V, I-temp.    | .81              | .64  | .48  |
| 843913   | AT24C04-10P-27  | DIP-8   | 512 x 8 | 2-wire serial, 2.7V, I-temp. | .75              | .56  | .415 |
| 843948   | AT24C04-10T-27  | TSSOP-8 | 512 x 8 | 2-wire serial, 2.7V, I-temp. | .95              | .72  | .56  |
| 368930   | AT24C04A-10P-27 | DIP-8   | 512 x 8 | 2-wire serial, 2.7V, I-temp. | .24              | .235 | .23  |
| 762136   | AT24C04A-10T-27 | TSSOP-8 | 512 x 8 | 2-wire serial, 2.7V, I-temp. | .97              | .73  | .55  |
| 843972   | AT24C04A-10S-27 | SOIC-8  | 512 x 8 | 2-wire serial, 2.7V, I-temp. | .73              | .68  | .418 |
| 369086   | AT24C04A-10S-27 | SOIC-8  | 512 x 8 | 2-wire serial, 2.7V, I-temp. | .24              | .235 | .23  |
| 762152   | AT24C04A-10S-18 | SOIC-8  | 512 x 8 | 2-wire serial, 1.8V, I-temp. | .75              | .58  | .44  |
| 844001   | AT24C04A-10S-27 | SOIC-8  | 512 x 8 | 2-wire serial, 2.7V, I-temp. | .73              | .55  | .418 |
| 369220   | AT24C08A-10S-27 | SOIC-8  | 1k x 8  | 2-wire serial, 2.7V, I-temp. | .31              | .292 | .274 |
| 844035   | AT24C08A-10S-27 | SOIC-8  | 1k x 8  | 2-wire serial, 2.7V, I-temp. | .79              | .60  | .458 |
| 844529   | AT25080A-10S-27 | SOIC-8  | 1k x 8  | SPI serial, 2.7V, I-temp.    | .77              | .65  | .53  |
| 369369   | AT24C16A-10P-27 | DIP-8   | 2k x 8  | 2-wire serial, 2.7V, I-temp. | .43              | .366 | .32  |
| 762232   | AT24C16A-10P-27 | DIP-8   | 2k x 8  | 2-wire serial, 2.7V, I-temp. | .85              | .64  | .48  |
| 762259   | AT24C16A-10T-27 | TSSOP-8 | 2k x 8  | 2-wire serial, 2.7V, I-temp. | 1.15             | .81  | .61  |

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| EEPROM (Continued) |                   |         |         |                                |       |             |
|--------------------|-------------------|---------|---------|--------------------------------|-------|-------------|
| Part No.           | Cross Ref.        | Pkg.    | Config. | Description                    | 1     | 5 50        |
| 368809             | AT24C16AN-10S1-18 | SOIC-8  | 2k x 8  | 2-wire serial, 1.8V, I-temp.   | \$.42 | \$.357 .34  |
| 368948             | AT24C16AN-10S1-27 | SOIC-8  | 2k x 8  | 2-wire serial, 2.7V, I-temp.   | .37   | .36 .34     |
| 844182             | AT24C16AN-10S1-27 | SOIC-8  | 2k x 8  | 2-wire serial, 2.7V, I-temp.   | .85   | .64 .49     |
| 844131             | AT24C16A-10PU-27  | DIP-8   | 2k x 8  | 2-wire serial, 2.7V, I-temp.   | .95   | .80 .65     |
| 762216             | AT24C16A-10S1-18  | SOIC-8  | 2k x 8  | 2-wire serial, 1.8V, I-temp.   | .99   | .83 .66     |
| 844158             | AT24C16A-10S1-27  | SOIC-8  | 2k x 8  | 2-wire serial, 2.7V, I-temp.   | .95   | .80 .65     |
| 844414             | AT24C02B-10S1-18  | SOIC-8  | 2k x 8  | 2-wire serial, 1.8V, I-temp.   | .80   | .61 .46     |
| 369836             | AT25160-10P1-18   | DIP-8   | 2k x 8  | SPI serial, 1.8V, I-temp.      | 1.49  | 1.45 1.39   |
| 369810             | AT25160A-10P1-18  | DIP-8   | 2k x 8  | SPI serial, 1.8V, I-temp.      | .61   | .52 .45     |
| 762401             | AT25160A-10T1-27  | TSSOP-8 | 2k x 8  | SPI serial, 2.7V, I-temp.      | 1.05  | .87 .70     |
| 369852             | AT25160AN-10S1-27 | SOIC-8  | 2k x 8  | SPI serial, 2.7V, I-temp.      | 1.21  | 1.03 .77    |
| 762427             | AT25160AN-10S1-18 | SOIC-8  | 2k x 8  | SPI serial, 1.8V, I-temp.      | .89   | .75 .60     |
| 844561             | AT25160AN-10S1-27 | SOIC-8  | 2k x 8  | SPI serial, 2.7V, I-temp.      | .85   | .72 .59     |
| 395292             | AT28BV16-25JC     | PLCC-32 | 2k x 8  | Parallel, 2.7V, com-temp.      | 3.25  | 3.10 2.94   |
| 369449             | AT24C32A-10P1-27  | DIP-8   | 4k x 8  | 2-wire serial, 2.7V, I-temp.   | .76   | .65 .47     |
| 762283             | AT24C32A-10PU-27  | DIP-8   | 4k x 8  | 2-wire serial, 2.7V, I-temp.   | .79   | .65 .52     |
| 369473             | AT24C32AN-10S1-18 | SOIC-8  | 4k x 8  | 2-wire serial, 2.7V, I-temp.   | .47   | .40 .381    |
| 369481             | AT24C32AN-10S1-27 | SOIC-8  | 4k x 8  | 2-wire serial, 2.7V, I-temp.   | 1.09  | .93 .70     |
| 844211             | AT24C32AN-10S1-27 | SOIC-8  | 4k x 8  | 2-wire serial, 2.7V, I-temp.   | .78   | .66 .53     |
| 369502             | AT24C32AN-10S1-27 | SOIC-8  | 4k x 8  | 2-wire serial, 2.7V, I-temp.   | 2.35  | 2.00 1.50   |
| 369983             | AT25320AN-10S1-27 | SOIC-8  | 4k x 8  | SPI serial, 2.7V, I-temp.      | 1.49  | 1.27 .95    |
| 844730             | AT25320AN-10S1-27 | SOIC-8  | 4k x 8  | SPI serial, 2.7V, I-temp.      | 1.10  | .92 .75     |
| 762321             | AT24C64A-10PU-27  | DIP-8   | 8k x 8  | 2-wire serial, 2.7V, I-temp.   | .89   | .75 .60     |
| 369570             | AT24C64A-10T1-27  | TSSOP-8 | 8k x 8  | 2-wire serial, 2.7V, I-temp.   | 4.35  | 3.70 2.77   |
| 369537             | AT24C64AN-10S1-27 | SOIC-8  | 8k x 8  | 2-wire serial, 2.7V, I-temp.   | .49   | .48 .46     |
| 844326             | AT24C64AN-10S1-27 | SOIC-8  | 8k x 8  | 2-wire serial, 2.7V, I-temp.   | .89   | .75 .60     |
| 844297             | AT24C64A-10T1-27  | TSSOP-8 | 8k x 8  | 2-wire serial, 2.7V, I-temp.   | 1.05  | .89 .72     |
| 844351             | AT24C64AN-10S1-27 | SOIC-8  | 8k x 8  | 2-wire serial, 2.7V, I-temp.   | .89   | .75 .60     |
| 762486             | AT25640A-10PU-27  | DIP-8   | 8k x 8  | SPI serial, 2.7V, I-temp.      | 1.25  | 1.05 .84    |
| 368737             | AT25640AN-10S1-18 | SOIC-8  | 8k x 8  | SPI serial, 1.8V, I-temp.      | 1.15  | .97 .78     |
| 762507             | AT25640AN-10S1-18 | SOIC-8  | 8k x 8  | SPI serial, 1.8V, I-temp.      | 1.29  | 1.06 .86    |
| 844764             | AT25640AN-10S1-27 | SOIC-8  | 8k x 8  | SPI serial, 2.7V, I-temp.      | 1.25  | 1.04 .84    |
| 762638             | AT28C64-12PC      | DIP-28  | 8k x 8  | Parallel, 5V, Com-temp.        | 10.95 | 10.61 10.30 |
| 762654             | AT28C64-15PC      | DIP-28  | 8k x 8  | Parallel, 5V, Com-temp.        | 9.69  | 9.49 9.29   |
| 762671             | AT28C64-25PI      | DIP-28  | 8k x 8  | Parallel, 5V, I-temp.          | 13.99 | 13.69 13.39 |
| 845100             | AT28C64B-15J1     | PLCC-32 | 8k x 8  | Parallel, 5V, I-temp.          | 2.39  | 2.29 2.23   |
| 762697             | AT28C64B-15JU     | PLCC-32 | 8k x 8  | Parallel, 5V, I-temp.          | 4.99  | 3.99 3.14   |
| 762718             | AT28C64B-15S1     | SOIC-28 | 8k x 8  | Parallel, 5V, I-temp.          | 5.59  | 5.29 4.99   |
| 844385             | AT24C04B-10S1-27  | SOIC-8  | 8k x 8  | 2-wire serial, 2.7V, I-temp.   | 1.05  | 1.02 .99    |
| 762734             | AT28C64E-12J1     | PLCC-32 | 8k x 8  | Parallel, 5V, I-temp.          | 4.79  | 4.63 4.50   |
| 762751             | AT28C64E-12S1     | SOIC-28 | 8k x 8  | Parallel, 5V, I-temp.          | 4.99  | 4.82 4.68   |
| 762777             | AT28C64X-15PI     | DIP-28  | 8k x 8  | Parallel, 5V, I-temp.          | 4.59  | 4.44 4.31   |
| 762793             | AT28HC64B-12J1    | PLCC-32 | 8k x 8  | Hi-speed parallel, 5V, I-temp. | 3.79  | 3.64 3.54   |
| 762814             | AT28HC64B-12JU    | PLCC-32 | 8k x 8  | Hi-speed parallel, 5V, I-temp. | 5.25  | 4.19 3.28   |
| 762831             | AT28HC64B-12PI    | DIP-28  | 8k x 8  | Hi-speed parallel, 5V, I-temp. | 4.79  | 4.07 3.85   |
| 369271             | AT24C128-10P1-18  | DIP-8   | 16k x 8 | 2-wire serial, 2.7V, I-temp.   | 1.89  | 1.61 1.21   |
| 369289             | AT24C128-10P1-27  | DIP-8   | 16k x 8 | 2-wire serial, 2.7V, I-temp.   | 1.89  | 1.61 1.21   |
| 762179             | AT24C128-10PU-27  | DIP-8   | 16k x 8 | 2-wire serial, 2.7V, I-temp.   | 1.25  | 1.05 .85    |
| 844115             | AT24C128N-10S1-27 | SOIC-8  | 16k x 8 | 2-wire serial, 2.7V, I-temp.   | 1.25  | 1.04 .84    |
| 369326             | AT24C128N-10S1-27 | SOIC-8  | 16k x 8 | 2-wire serial, 2.7V, I-temp.   | 1.89  | 1.61 1.21   |
| 762195             | AT24C128N-10S1-27 | SOIC-8  | 16k x 8 | 2-wire serial, 2.7V, I-temp.   | 1.25  | 1.05 .85    |
| 762380             | AT25128A-10T1-27  | TSSOP-8 | 16k x 8 | SPI serial, 2.7V, I-temp.      | 1.49  | 1.19 .97    |
| 844545             | AT25128AN-10S1-27 | SOIC-8  | 16k x 8 | SPI serial, 2.7V, I-temp.      | 1.35  | .99 .87     |
| 762363             | AT25128A-10PU-27  | DIP-8   | 16k x 8 | SPI serial, 2.7V, I-temp.      | 1.45  | 1.07 .87    |
| 762443             | AT25256A-10S1-18  | TSSOP-8 | 32k x 8 | SPI serial, 1.8V, I-temp.      | 1.99  | 1.61 1.33   |
| 844596             | AT25256A-10PU-27  | DIP-8   | 32k x 8 | SPI serial, 2.7V, I-temp.      | 1.85  | 1.47 1.21   |
| 844625             | AT25256A-10T1-27  | TSSOP-8 | 32k x 8 | SPI serial, 2.7V, I-temp.      | 1.99  | 1.59 1.31   |
| 844641             | AT25256AN-10S1-27 | SOIC-8  | 32k x 8 | SPI serial, 2.7V, I-temp.      | 1.85  | 1.47 1.21   |
| 762460             | AT25256AN-10S1-18 | SOIC-8  | 32k x 8 | SPI serial, 1.8V, I-temp.      | 1.85  | 1.51 1.23   |
| 844713             | AT25256AN-10S1-27 | SOIC-8  | 32k x 8 | SPI serial, 2.7V, I-temp.      | 1.85  | 1.47 1.21   |
| 762267             | AT24C256B-10T1-18 | TSSOP-8 | 32k x 8 | 2-wire serial, 1.8V, I-temp.   | 2.19  | 1.76 1.31   |
| 762574             | AT28BV64B-20JU    | PLCC-32 | 8k x 8  | Parallel, 2.7V - 3.6V, I-temp. | 8.55  | 6.83 5.82   |
| 762591             | AT28BV64B-20S1    | SOIC-28 | 8k x 8  | Parallel, 2.7V - 3.6V, I-temp. | 9.39  | 6.29 5.69   |
| 845003             | AT28C256-15J1     | PLCC-32 | 32k x 8 | Paged parallel, 5V, I-temp.    | 4.75  | 4.58 4.45   |
| 762611             | AT28C256-15JU     | PLCC-32 | 32k x 8 | Paged parallel, 5V, I-temp.    | 6.69  | 5.35 4.57   |

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| EEPROM (Continued)                        |                   |         |          |   |         |                 |
|---|-------------------|---------|----------|---|---------|-----------------|
| Part No.                                  | Cross Ref.        | Pkg.    | Config.  | Description                                 | 1       | 5 50            |
| 845054                                    | AT28C256-15P1     | DIP-28  | 32k x 8  | Paged parallel, 5V, I-temp.                 | \$11.99 | \$11.75 \$11.39 |
| 845071                                    | AT28C256-15J1     | PLCC-32 | 32k x 8  | Paged parallel, 5V, I-temp.                 | 5.59    | 5.42 5.26       |
| 762304                                    | AT24C512-10PU-27  | DIP-8   | 64k x 8  | 2-wire serial, 2.7V, I-temp.                | 2.29    | 1.84 1.52       |
| 844271                                    | AT24C512N-10S1-27 | SOIC-8  | 64k x 8  | 2-wire serial, 2.7V, I-temp.                | 2.29    | 1.79 1.52       |
| 844246                                    | AT24C512-10T1-27  | TSSOP-8 | 64k x 8  | 2-wire serial, 2.7V, I-temp.                | 2.45    | 1.94 1.63       |
| 845441                                    | AT3402-10T1-18    | SOIC-8  | 256 x 8  | 2-wire serial, 1.8V, I-temp.                | .69     | .204 .198       |
| 763884                                    | AT93C46-10PU-18   | DIP-28  | 128 x 8  | 3-wire serial, 1.8V - 5.5V, I-temp.         | .69     | .495 .375       |
| 846188                                    | AT93C46-10PU-27   | DIP-8   | 128 x 8  | 3-wire serial, 2.7V - 5.5V, I-temp.         | .61     | .46 .36         |
| 846217                                    | AT93C46-10S1-27   | SOIC-8  | 128 x 8  | 3-wire serial, 2.7V - 5.5V, I-temp.         | .55     | .46 .36         |
| 846241                                    | AT93C46-10S1-27   | SOIC-8  | 128 x 8  | 3-wire serial, 2.7V - 5.5V, I-temp.         | .85     | .193 .187       |
| 846276                                    | AT93C46-10T1-27   | TSSOP-8 | 128 x 8  | 3-wire serial, 2.7V - 5.5V, I-temp.         | .85     | .65 .49         |
| 846284                                    | AT93C46A-10PU-27  | DIP-8   | 64 x 16  | 3-wire serial, 2.7V - 5.5V, I-temp.         | .61     | .46 .36         |
| 763905                                    | AT93C46A-10S1-18  | SOIC-8  | 64 x 16  | 3-wire serial, 1.8V - 5.5V, I-temp.         | .97     | .95 .92         |
| 846313                                    | AT93C46A-10S1-27  | SOIC-8  | 64 x 16  | 3-wire serial, 2.7V - 5.5V, I-temp.         | .61     | .46 .35         |
| 846348                                    | AT93C46A-10T1-27  | TSSOP-8 | 64 x 16  | 3-wire serial, 2.7V - 5.5V, I-temp.         | .85     | .64 .48         |
| 846364                                    | AT93C56A-10S1-27  | SOIC-8  | 256 x 8  | 3-wire serial, 2.7V - 5.5V, I-temp.         | .71     | .54 .41         |
| 846399                                    | AT93C64A-10PU-27  | DIP-8   | 512 x 8  | 3-wire serial, 2.7V - 5.5V, I-temp.         | .27     | .262 .26        |
| 846428                                    | AT93C64A-10S1-27  | SOIC-8  | 512 x 8  | 3-wire serial, 2.7V - 5.5V, I-temp.         | .77     | .58 .44         |
| 763948                                    | AT93C64A-10T1-27  | TSSOP-8 | 512 x 8  | 3-wire serial, 2.7V - 5.5V, I-temp.         | .99     | .77 .57         |
| 763964                                    | AT93C64A-10S1-27  | SOIC-8  | 2k x 8   | 3-wire serial, 2.7V - 5.5V, I-temp.         | .89     | .70 .53         |
| 843673                                    | AT17LV128-10PC    | DIP-8   | 128k x 1 | 128k-bit config eeprom mem., C-temp.        | 9.55    | 9.26 8.99       |
| 843702                                    | AT17LV256-10PC    | DIP-8   | 256k x 1 | 256k-bit config eeprom mem., C-temp.        | 10.05   | 9.72 9.44       |
| 843711                                    | AT17LV512-10UC    | PLCC-20 | 524k x 1 | 1-bit, serial, 3.3V & 5V System, Com. temp. | 13.39   | 13.02 12.65     |
| 762099                                    | AT17F080-30J1     | PLCC-20 | 8M x 1   | Config flash, I-temp.                       | 41.09   | 39.92 38.78     |
| * - x 16 when ORG pin is connected to Vcc |                   |         |          |   |         |                 |

| EEPROM   |               |         |         |   |        |        |
|----------|---------------|---------|---------|---|--------|--------|
| Part No. | Cross Ref.    | Pkg.    | Config. | Description                                   | 1      | 5 50   |
| 697856   | M24C02-WB6P   | SO-8    | 256 x 8 | 2.5-5.5V, 2-kbit serial I <sup>2</sup> C bus  | \$.242 | \$.235 |
| 697864   | M24C02-WM6P   | SO-8    | 256 x 8 | 2.5-5.5V, 2-kbit serial I <sup>2</sup> C bus  | .71    | .63    |
| 697872   | M24C02-WM6TP  | SO-8    | 256 x 8 | 2.5-5.5V, 2-kbit serial I <sup>2</sup> C bus  | .242   | .235   |
| 697881   | M24C04-WM6P   | SO-8    | 512 x 8 | 2.5-5.5V, 4-kbit serial I <sup>2</sup> C bus  | .90    | .69    |
| 697899   | M24C04-WM6TP  | SO-8    | 512 x 8 | 2.5-5.5V, 4-kbit serial I <sup>2</sup> C bus  | .242   | .235   |
| 697901   | M24C16-WM6P   | SO-8    | 2k x 8  | 2.5-5.5V, 16-kbit serial I <sup>2</sup> C bus | .268   | .26    |
| 697910   | M24C32-LDW6TP | TSSOP-8 | 4k x 8  | 2.5-5.5V, 32-kbit serial I <sup>2</sup> C bus | .389   | .378   |
| 698411   | M34C32-LDW6TP | TSSOP-8 | 4k x 8  | 2.5-5.5V, 32-kbit serial I <sup>2</sup> C bus | .189   | .183   |

| EEPROM - Serial |              |        |         |                                      |       |           |
|-----------------|--------------|--------|---------|--------------------------------------|-------|-----------|
| Part No.        | Cross Ref.   | Pkg.   | Config. | Description                          | 1     | 5 50      |
| 790866          | 24LC00/P     | DIP-8  | 16 x 8  | 128-bit I <sup>2</sup> C bus, 2.5V   | \$.34 | \$.31 .28 |
| 790882          | 24LC014-I/MS | MSOP-8 | 128 x 8 | 1k I <sup>2</sup> C, 2.5V, I-temp.   | .51   | .50 .49   |
| 790903          | 24LC018-I/P  | DIP-8  | 128 x 8 | 1k I <sup>2</sup> C, 2.5V, I-temp.   | .347  | .337      |
| 790920          | 24LC018-I/MS | SOIC-8 | 128 x 8 | 1k I <sup>2</sup> C, 2.5V, I-temp.   | .36   | .328      |
| 790946          | 24LC018/P    | DIP-8  | 128 x 8 | 1k I <sup>2</sup> C, 2.5V            | .341  | .31       |
| 695834          | 24LC16B-I/MS | SOIC-8 | 256 x 8 | 5V, 400kHz                           | .59   | .55 .524  |
| 695931          | 24LC64-I/P   | DIP-8  | 8k x 8  | 5V, 400kHz                           | .89   | .84 .80   |
| 695957          | 24LC64-I/MS  | SOIC-8 | 8k x 8  | 5V, 400kHz                           | .89   | .86 .81   |
| 695973          | 25LC640-I/MS | SOIC-8 | 8k x 8  | 5V, 2MHz                             | .99   | .93 .89   |
| 695818          | 24LC128-I/MS | SOIC-8 | 16k x 8 | 5V, 400kHz                           | 1.45  | 1.36 1.29 |
| 695851          | 24LC256-I/MS | SOIC-8 | 32k x 8 | 5V, 400kHz                           | 2.05  | 1.94 1.84 |
| 695877          | 24LC256-I/MS | SOIC-8 | 32k x 8 | 5V, 400kHz                           | 2.05  | 1.92 1.83 |
| 695893          | 24LC512-I/MS | SOIC-8 | 64k x 8 | 5V, 400kHz                           | 3.09  | 2.94 2.80 |
| 695914          | 24LC515-I/MS | SOIC-8 | 64k x 8 | 5V, I <sup>2</sup> C CMOS            | 3.39  | 3.23 3.07 |
| 791244          | 93C46B-I/MS  | SOIC-8 | 64 x 16 | 1k microwire, 5V, I-temp, w/o pin    | .357  | .345      |
| 791261          | 93C46B/SN    | SOIC-8 | 64 x 16 | 1k microwire, 5V, w/out org pin      | .386  | .375      |
| 791287          | 93C46C-I/P   | DIP-8  | 128 x 8 | 1k microwire, 5V, I-temp., w/org pin | .378  | .345      |
| 791308          | 93LC46/SN    | SOIC-8 | 128 x 8 | 1k microwire, 2.5V, w/org pin        | .58   | .53 .483  |
| 791324          | 93LC46A-I/MS | SOIC-8 | 128 x 8 | 1k microwire, 2.5V, I-temp.          | .37   | .362      |
| 791332          | 93LC46B-I/P  | DIP-8  | 64 x 16 | 1k microwire, 2.5V, I-temp.          | .38   | .33       |

DIP SOIC PLCC SSOP TSSOP SO

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## EEPROM – Serial (Cont.)

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| Part No. | Cross Ref.    | Pkg.    | Config.       | Description                               | * Minimum order 5 pieces |      |      |
|----------|---------------|---------|---------------|---|--------------------------|------|------|
|          |               |         |               |   | 1                        | 5    | 50   |
| 791367   | 93LC46B-I/ST  | TSSOP-8 | 64 x 16       | 1k microwire, 2.5V, I-temp. ....          | * .41                    | .37  |      |
| 791383   | 93LC46B/P     | DIP-8   | 64 x 16       | 1k microwire, 2.5V ..... *                | .36                      | .328 |      |
| 791404   | 93LC46C-I/SNG | SOIC-8  | 128 x 8       | 1k microwire, 2.5V, I-temp, w/ pin .....  | .36                      | .345 |      |
| 790962   | 24LC02B-I/SNG | SOIC-8  | 256 x 8       | 2k I2C, 2.5V, I-temp. ....                | .50                      | .454 | .45  |
| 791421   | 93LC56-I/SNG  | SOIC-8  | 256 x 8       | 2k microwire, 2.5V, I-temp. ....          | .71                      | .65  | .59  |
| 791447   | 93LC56B/P     | DIP-8   | 128 x 16      | 2k microwire, 2.5V ..... *                | .44                      | .398 | .362 |
| 790989   | 24LC04B-I/ST  | TSSOP-8 | 128 x 256 x 8 | 4k I2C, 2.5V, I-temp. ....                | .47                      | .46  | .448 |
| 791463   | 93LC66B/P     | DIP-8   | 256 x 16      | 4k microwire, 2.5V ..... *                | .52                      | .474 | .431 |
| 791480   | 93LC66C-I/SNG | SOIC-8  | 256 x 16      | 4k microwire, 2.5V, I-temp. ....          | .44                      | .43  | .415 |
| 791172   | 25C080/SN     | SOIC-8  | 1k x 8        | 8k SPI bus, 3MHz, 5V ..... *              | .97                      | .88  | .80  |
| 791501   | 93LC86-I/SNG  | SOIC-8  | 2k x 8        | 16k microwire, I-temp. ....               | 1.07                     | .97  | .88  |
| 791041   | 24LC32A-I/P   | SOIC-8  | 4k x 8        | 32k I2C, 2.5V ..... *                     | .79                      | .72  | .66  |
| 791076   | 24LC32A/SN    | DIP-8   | 4k x 8        | 32k I2C, 2.5V, I-temp. ....               | .81                      | .74  | .68  |
| 791156   | 25AA320-I/SNG | SOIC-8  | 4k x 8        | 32k SPI bus, 1MHz, 1.8V, I-temp. ....     | .89                      | .86  | .83  |
| 791201   | 25C320/SN     | SOIC-8  | 4k x 8        | 32k SPI bus, 3MHz, 5V ...                 | 1.35                     | 1.23 | 1.12 |
| 791092   | 24LC64-I/SN   | SOIC-8  | 8k x 8        | 64k I2C, 2.5V, I-temp. ....               | .97                      | .88  | .80  |
| 791113   | 24LC64-I/SNG  | SOIC-8  | 8k x 8        | 64k I2C, 2.5V, I-temp. ....               | .94                      | .85  | .78  |
| 790840   | 24C65/P       | DIP-8   | 8k x 8        | 64k I2C Smart, 4.5V to 6V, 400KHz ....    | 1.85                     | 1.77 | 1.72 |
| 791130   | 24LC65-I/P    | DIP-8   | 8k x 8        | 64k I2C Smart, 2.5V - 6V, 100/400KHz ...  | 2.49                     | 2.33 | 2.14 |
| 791228   | 25LC640-I/SNG | SOIC-8  | 8k x 8        | 64k SPI bus, 3/2.5MHz, 2.5V, I-temp. .... | .89                      | .87  | .85  |
| 791009   | 24LC128-I/P   | DIP-8   | 16k x 8       | 128k I2C CMOS, 2.5V, I-temp. ....         | 1.21                     | 1.20 | 1.19 |
| 791025   | 24LC128-I/ST  | TSSOP-8 | 16k x 8       | 128k I2C CMOS, 2.5V, I-temp. ....         | 1.55                     | 1.44 | 1.31 |

## EEPROM

| Part No. | Cross Ref. | Pkg.    | Config.  | Description                 | 1      | 10     | 100    |
|----------|------------|---------|----------|-----------------------------|--------|--------|--------|
| 200627   | 24C44      | DIP-8   | 16 x 16  | Serial, 5V .....            | \$1.99 | \$1.69 | \$1.26 |
| 276955   | 93C46      | SOIC-8  | 64 x 16  | 3-wire serial, 2-5V .....   | .39    | .32    | .272   |
| 102058   | 93C46      | DIP-8   | 64 x 16  | 3-wire serial, 2-5V .....   | .43    | .32    | .24    |
| 108839   | 24C02P     | DIP-8   | 256 x 8  | 2-wire serial, 5V .....     | .40    | .38    | .28    |
| 200598   | 93C66      | DIP-8   | 256 x 16 | 3-wire Serial, 2-5V .....   | .51    | .42    | .315   |
| 108847   | 24C04P     | DIP-8   | 512 x 8  | 2-wire serial, 2-5V .....   | .71    | .57    | .53    |
| 200547   | 24C08-10   | DIP-8   | 1k x 8   | 2-wire serial, 2-5V .....   | .79    | .72    | .65    |
| 200601   | 93C86      | DIP-8   | 1k x 16  | 3-wire serial, 2-5V .....   | .72    | .58    | .435   |
| 276681   | 24C16      | SOIC-8  | 2k x 8   | 2-wire serial, 2-5V .....   | .45    | .25    | .213   |
| 200555   | 24C16-10   | DIP-8   | 2k x 8   | 2-wire serial, 5V .....     | 1.18   | 1.00   | .75    |
| 276699   | 28C16      | SOIC-24 | 2k x 8   | Page parallel, 5V .....     | 2.45   | 1.98   | 1.73   |
| 74691    | 28C16A-25  | DIP-24  | 2k x 8   | Page parallel, 5V .....     | 3.99   | 3.69   | 3.39   |
| 276701   | 28C17      | DIP-28  | 2k x 8   | Page parallel, 5V .....     | 3.25   | 2.95   | 2.65   |
| 40416    | 2817A-25   | DIP-28  | 2k x 8   | Page parallel, 5V .....     | 7.15   | 6.45   | 5.85   |
| 200563   | 24C32-10   | DIP-8   | 4k x 8   | 2-wire serial, 5V .....     | 1.08   | .87    | .77    |
| 200619   | 24C65      | DIP-8   | 8k x 8   | 2-wire serial, 2-5V .....   | 2.15   | 2.05   | 1.85   |
| 276752   | 28C64      | SOIC-28 | 8k x 8   | Page parallel, 5V .....     | 3.69   | 3.14   | 2.35   |
| 74827    | 28C64A-25  | DIP-28  | 8k x 8   | Page parallel, 5V .....     | 4.45   | 3.80   | 3.65   |
| 40475    | 2865A      | DIP-28  | 8k x 8   | 5V .....                    | 4.95   | 4.49   | 4.05   |
| 200571   | 24C128-10  | DIP-8   | 16k x 8  | 2-wire serial, 2-5V .....   | 1.65   | 1.35   | 1.20   |
| 200580   | 24C256-10  | DIP-8   | 32k x 8  | 2-wire serial, 2-5V .....   | 2.35   | 1.90   | 1.70   |
| 74878    | 28C256-25  | DIP-28  | 32k x 8  | Page parallel, 5V .....     | 8.25   | 7.10   | 7.05   |
| 74843    | 28C256-15  | DIP-28  | 32k x 8  | Page parallel, 5V .....     | 8.99   | 6.89   | 6.19   |
| 276832   | 24C512     | DIP-8   | 64k x 8  | 2-wire serial, 2-5V .....   | 2.15   | 2.08   | 1.91   |
| 276912   | 24C1024    | DIP-8   | 128k x 8 | 2-wire serial, 2.7-5V ..... | 6.65   | 5.18   | 4.77   |
| 242253   | 28C010-15  | DIP-32  | 128k x 8 | Page parallel, 5V .....     | 30.85  | 28.05  | 25.50  |



## PICKit™ 2 Microcontroller Starter Kit

The PICKit™ 2 microcontroller programmer is a low cost development programmer. It is capable of programming most of Microchip's Flash microcontrollers. New device support can be added by updating the operating system. The latest firmware is available on Microchip's website. This kit includes PICKit™ 2 microcontroller programmer, USB cable and CD ROM.



| Part No. | Cross Ref. | Description                  | 1       | 10      | 100     |
|----------|------------|------------------------------|---------|---------|---------|
| 697338   | DV164120   | Programmer starter kit ..... | \$75.95 | \$72.29 | \$68.86 |

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product ♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)



## PICDEM™ USB Demo Board

The PICDEM FS USB demonstration kit is designed as an easy-to-use evaluation platform for Microchip's full speed USB solution. The devices in Microchip's new family of USB microcontrollers fully support USB2.0 and serial communications of up to 12Mbps/s. This kit provides all of the hardware and software needed to demonstrate and develop a complete USB communication solution. The microcontroller for the PICDEM board is the PIC18F4550, the principal device of the PIC18F2455/2550/4455/4550 family. All of these devices implement power-saving nano-watt technology, enhanced flash program memory and feature USB modules with:

- Full-speed (12Mbit/s) and low-speed (1.5Mbit/s) operation
- Support of control, interrupt, bulk and isochronous transfers
- On-chip features for a true-single chip USB implementation
- 1kbyte of dual-access RAM for USB • USB 2.0 compliance
- Interface for off-chip USB transceiver • Support of up to 32 end points



| Part No. | Cross Ref. | Description          | 1       | 10      | 100     |
|----------|------------|----------------------|---------|---------|---------|
| 697207   | DM163025   | USB demo board ..... | \$91.09 | \$86.76 | \$82.63 |



## / PHILIPS Controller Interface

For more NXP Controller Interface visit [www.Jameco.com](http://www.Jameco.com)

| Part No. | Cross Ref.  | Pkg.   | Description                             | 1      | 10     | 100    |
|----------|-------------|--------|---|--------|--------|--------|
| 699780   | PCA82C250N  | DIP-8  | CAN controller interface, 1 Mbaud ..... | \$1.89 | \$1.82 | \$1.75 |
| 699798   | PCA82C250TD | SOIC-8 | CAN controller interface, 1 Mbaud ..... | 1.55   | 1.51   | 1.47   |
| 699801   | PCA82C251TD | SOIC-8 | CAN transceiver for 24V systems .....   | 1.55   | 1.51   | 1.47   |



## / PHILIPS I²C & SMBus

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| Part No. | Cross Ref. | Pkg.     | Description                                 | 1      | 10     | 100    |
|----------|------------|----------|---|--------|--------|--------|
| 699819   | PCA9554D   | SOIC-16  | 8-bit I²C SMBus I/O port w/ interrupt ....  | \$1.59 | \$1.55 | \$1.50 |
| 699827   | PCA9554PW  | TSSOP-16 | 8-bit I²C SMBus I/O port w/ interrupt ..... | 1.59   | 1.54   | 1.50   |
| 699835   | PCA9555DB  | SSOP-24  | 16-bit I²C SMBus I/O port w/ interrupt .... | 1.89   | 1.95   | 2.01   |
| 699851   | PCA9555PW  | TSSOP-24 | 16-bit I²C SMBus I/O port w/ interrupt .... | 1.49   | 1.44   | 1.40   |



## Flash Memory – Serial

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| Part No. | Cross Ref.   | Pkg.   | Config.  | Description                            | 1      | 10     | 100    |
|----------|--------------|--------|----------|--|--------|--------|--------|
| 659913   | M25P05-AVMN6 | SOIC-8 | 64k x 8  | 3V w/ 20MHz SPI bus interf. ....       | \$1.69 | \$1.48 | \$1.15 |
| 321605   | M25P10-AVMN6 | SOIC-8 | 128k x 8 | 3V w/ 40MHz SPI bus interf. ....       | 1.49   | 1.27   | 1.24   |
| 321648   | M25P20-AVMN6 | SOIC-8 | 256k x 8 | 3V w/ 40MHz SPI bus interf. ....       | 1.75   | 1.60   | 1.45   |
| 321664   | M25P40-AVMN6 | SOIC-8 | 512k x 8 | 3V w/ 40MHz SPI bus interf. ....       | 3.05   | 2.89   | 2.73   |
| 321672   | M25P80-AVMN6 | SOIC-8 | 1M x 8   | 3V w/ 40MHz SPI bus interf. ....       | 3.35   | 2.85   | 2.83   |
| 697928   | M25P32-AVMN6 | MLP-8  | 4M x 8   | 2.7-3.6V w/ 50MHz SPI bus interf. .... | 7.99   | 7.54   | 7.33   |



## Flash Memory – Data

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| Part No. | Cross Ref.        | Pkg.     | Description                                  | 1      | 10     | 100    |
|----------|-------------------|----------|--|--------|--------|--------|
| 763286   | AT45DB011B-CC     | CBGA-9   | 1M-bit, 2.7V, Com-temp. ....                 | \$2.09 | \$1.89 | \$1.73 |
| 763307   | AT45DB011B-XC     | TSSOP-14 | 1M-bit, 2.7V, Com-temp. ....                 | 1.29   | 1.25   | 1.22   |
| 763323   | AT45DB011B-XI     | TSSOP-14 | 1M-bit, 2.7V, I-temp. ....                   | 1.48   | 1.33   | 1.23   |
| 845505   | AT45DB011B-SC     | SOIC-8   | 1M-bit, 2.7V, Com-temp. ....                 | 2.45   | 2.09   | 1.76   |
| 845556   | AT45DB011B-SU     | SOIC-8   | 1M-bit, 2.7V, I-temp. ....                   | 1.35   | 1.07   | .95    |
| 763340   | AT45DB021B-SU     | SOIC-8   | 2M-bit, 2.7V, I-temp. ....                   | 1.65   | 1.43   | 1.22   |
| 763366   | AT45DB021B-TI     | TSOP-8   | 2M-bit, 2.7V, I-temp. ....                   | 1.75   | 1.68   | 1.63   |
| 845581   | AT45DB021B-SC     | SOIC-8   | 2M-bit, 2.7V, Com-temp. ....                 | 5.39   | 4.65   | 4.59   |
| 845610   | AT45DB041B-SC     | SOIC-8   | 4M-bit, 2.7V - 3.6V .....                    | 1.89   | 1.59   | 1.55   |
| 845644   | AT45DB041B-SC-2.5 | SOIC-8   | 4M-bit, 2.5V - 3.6V .....                    | 1.89   | 1.69   | 1.55   |
| 845695   | AT45DB041B-SU     | SOIC-8   | 4M-bit, 2.7V - 3.6V .....                    | 1.99   | 1.59   | 1.55   |
| 763382   | AT45DB081B-RC     | SOIC-28  | 8M-bit, 2.7V - 3.6V .....                    | 4.59   | 4.09   | 3.80   |
| 763391   | AT45DB081B-RI     | SOIC-28  | 8M-bit, 2.7V, I-temp. ....                   | 5.45   | 4.99   | 4.49   |
| 763411   | AT45DB081B-TC     | TSOP-28  | 8M-bit, 2.7V, I-temp. ....                   | 2.99   | 2.99   | 2.81   |
| 763438   | AT45DB081B-TI     | TSOP-28  | 8M-bit, 2.7V, I-temp. ....                   | 3.19   | 3.10   | 3.02   |
| 763454   | AT45DB161D-MU     | MLF-8    | 16M-bit, 2.7V - 3.6V, I-temp. ....           | 3.39   | 2.99   | 2.68   |
| 763471   | AT45DB321C-CI     | CBGA-24  | 32M-bit, 2.7V, I-temp. ....                  | 7.25   | 7.02   | 6.82   |
| 763497   | AT45DB321C-CNU    | CASON-8  | 32M-bit, 2.7V, I-temp. ....                  | 5.55   | 5.34   | 4.92   |
| 845724   | AT45DB321C-CNC    | CASON-8  | 32M-bit, 2.7V .....                          | 5.99   | 5.69   | 5.39   |
| 845741   | AT45DB642D-TU     | TSOP-28  | Dual interface , 64M-bit, 2.7V, I-temp. .... | 8.95   | 8.68   | 8.43   |



# Flash Memory, SDRAM & NVRAM



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## Flash Memory – SPI/ISP

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| Part No. | Cross Ref.          | Pkg.    | Config.  | Description                         | 1      | 10     | 100    |
|----------|---------------------|---------|----------|-------------------------------------|--------|--------|--------|
| 844895   | AT25F512AN-10SU-27  | SOIC-8  | 64k x 8  | SPI serial, 512k-bit, 2.7V, I-temp. | \$1.36 | \$1.09 | \$0.87 |
| 844799   | AT25F1024AN-10SU-27 | SOIC-8  | 128k x 8 | SPI serial, 1M-bit, 2.7V, I-temp.   | 1.55   | 1.24   | 1.00   |
| 844836   | AT25F2048AN-10SU-27 | SOIC-8  | 256k x 8 | SPI serial, 2M-bit, 2.7V, I-temp.   | 1.85   | 1.47   | 1.22   |
| 844861   | AT25F4096AN-10SU-27 | SOIC-8  | 512k x 8 | SPI serial, 4M-bit, 2.7V, I-temp.   | 2.29   | 1.85   | 1.71   |
| 845775   | AT49BV040B-70JU     | PLCC-32 | 512k x 8 | Flash Memory, 2.7V - 5.5V (ISP)     | 1.85   | 1.47   | 1.18   |



## Flash Memory

NEW

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| Part No. | Cross Ref.      | Pkg.    | Config.  | Description                               | 1      | 10     | 100    |
|----------|-----------------|---------|----------|---|--------|--------|--------|
| 763091   | AT29C512-70TC   | TSOP-32 | 64k x 8  | 70ns, 5V, Com.-temp.                      | \$1.95 | \$1.87 | \$1.82 |
| 845273   | AT29C512-90JC   | PLCC-32 | 64k x 8  | 90ns, 5V, Com.-temp.                      | 2.55   | 2.29   | 1.93   |
| 845302   | AT29C512-90JC   | PLCC-32 | 64k x 8  | 90ns, 5V, I-temp.                         | 2.39   | 2.19   | 1.84   |
| 763112   | AT29C512-90TC   | TSOP-32 | 64k x 8  | 90ns, 5V, I-temp.                         | 1.95   | 1.87   | 1.82   |
| 763180   | AT29LV512-15TC  | TSOP-32 | 64k x 8  | 150ns, 3.3V, I-temp.                      | 1.95   | 1.87   | 1.82   |
| 763227   | AT29LV512-15TC  | TSOP-32 | 64k x 8  | 150ns, 3.3V, I-temp.                      | 2.59   | 2.12   | 1.68   |
| 762873   | AT29BV010A-15JC | PLCC-32 | 128k x 8 | 150ns, 2.7V-3.6V, Com.-temp.              | 2.19   | 2.10   | 2.04   |
| 762857   | AT29BV010A-15JC | PLCC-32 | 128k x 8 | 150ns, 2.7V-3.6V, I-temp.                 | 2.19   | 2.10   | 2.04   |
| 762953   | AT29C010A-70JU  | PLCC-32 | 128k x 8 | 70ns, 5V, I-temp.                         | 2.59   | 2.26   | 1.89   |
| 845185   | AT29C010A-90JC  | PLCC-32 | 128k x 8 | 90ns, 5V, Com.-temp.                      | 3.85   | 2.57   | 2.17   |
| 845214   | AT29C010A-90JC  | PLCC-32 | 128k x 8 | 90ns, 5V, I-temp.                         | 5.35   | 4.69   | 4.58   |
| 762970   | AT29C010A-90JU  | PLCC-32 | 128k x 8 | 90ns, 5V, I-temp.                         | 2.95   | 2.36   | 1.89   |
| 762996   | AT29C010A-90TC  | TSOP-32 | 128k x 8 | 90ns, 5V, Com.-temp.                      | 2.19   | 2.10   | 2.04   |
| 763016   | AT29C010A-90TC  | TSOP-32 | 128k x 8 | 90ns, 5V, I-temp.                         | 2.19   | 2.10   | 2.04   |
| 845134   | AT29C010A-12JC  | PLCC-32 | 128k x 8 | 120ns, 5V, Com.-temp.                     | 2.85   | 2.57   | 2.36   |
| 845169   | AT29C010A-12JC  | PLCC-32 | 128k x 8 | 120ns, 5V, I-temp.                        | 2.99   | 2.75   | 2.49   |
| 762937   | AT29C010A-12TC  | TSOP-32 | 128k x 8 | 120ns, 5V, I-temp.                        | 2.19   | 2.10   | 2.04   |
| 763139   | AT29LV010A-12JC | PLCC-32 | 128k x 8 | 120ns, 3.3V, 8k boot block, I-temp.       | 2.65   | 2.06   | 1.89   |
| 845337   | AT29LV010A-15JC | PLCC-32 | 128k x 8 | 150ns, 3.3V, 8k boot block, I-temp.       | 2.69   | 2.05   | 1.89   |
| 763147   | AT29LV010A-15TC | TSOP-32 | 128k x 8 | 150ns, 3.3V, 8k boot block, Com.-temp.    | 2.79   | 2.15   | 1.89   |
| 762890   | AT29BV020-15TC  | TSOP-32 | 256k x 8 | 150ns, 2.7V-3.6V, Com.-temp.              | 2.95   | 2.82   | 2.74   |
| 845249   | AT29C020-70JC   | PLCC-32 | 256k x 8 | 70ns, 5V, Com.-temp.                      | 7.59   | 7.19   | 6.85   |
| 845361   | AT29LV020-10JC  | PLCC-32 | 256k x 8 | 100ns, 3.3V, I-temp.                      | 6.99   | 6.65   | 6.30   |
| 845370   | AT29LV020-10TC  | TSOP-32 | 256k x 8 | 100ns, 3.3V, I-temp.                      | 3.19   | 2.69   | 2.52   |
| 762911   | AT29BV040A-20TC | TSOP-32 | 512k x 8 | 200ns, 2.7V-3.6V, 16k boot block, I-temp. | 4.49   | 4.03   | 3.57   |
| 763032   | AT29C040A-15TC  | TSOP-32 | 512k x 8 | 150ns, 5V, Com.-temp.                     | 4.15   | 3.99   | 3.88   |
| 763059   | AT29C040A-90TC  | TSOP-32 | 512k x 8 | 90ns, 5V, I-temp.                         | 4.15   | 3.99   | 3.88   |
| 763075   | AT29C040A-90TC  | TSOP-32 | 512k x 8 | 90ns, 5V, I-temp.                         | 5.45   | 4.39   | 3.58   |
| 845417   | AT29LV040A-15JC | PLCC-32 | 512k x 8 | 150ns, 3.3V, 16k boot block, I-temp.      | 4.49   | 3.69   | 3.57   |
| 763163   | AT29LV040A-15TC | TSOP-32 | 512k x 8 | 150ns, 3.3V, 16k boot block, I-temp.      | 4.49   | 3.99   | 3.58   |

## Flash Memory

| Part No. | Cross Ref.      | Pkg.    | Config.  | Description                         | 1      | 10     | 100    |
|----------|-----------------|---------|----------|-------------------------------------|--------|--------|--------|
| 375929   | AT29LV256-15JC  | PLCC-32 | 32k x 8  | 150ns, 3V, Com.-temp.               | \$4.39 | \$3.74 | \$3.70 |
| 242552   | 29C512-12       | DIP-32  | 64k x 8  | 120ns, 5V                           | 5.25   | 4.46   | 4.15   |
| 242561   | 29F512-90       | DIP-32  | 64k x 8  | 90ns, 5V                            | 4.69   | 3.89   | 3.59   |
| 375785   | AT49BV512-12JC  | PLCC-32 | 64k x 8  | 120ns, 2.7V, Com.-temp.             | 4.25   | 4.15   | 4.05   |
| 74771    | 28F010-15       | DIP-32  | 128k x 8 | 150ns, 5V                           | 5.49   | 4.12   | 3.66   |
| 376075   | AT29C010A-70JC  | PLCC-32 | 128k x 8 | 70ns, 5V                            | 2.35   | 2.15   | 2.12   |
| 242587   | 29F010-120      | DIP-32  | 128k x 8 | 120ns, 5V                           | 3.95   | 3.65   | 3.15   |
| 242595   | 29F010-90       | DIP-32  | 128k x 8 | 90ns, 5V                            | 5.35   | 4.34   | 3.61   |
| 242608   | 29F010-70       | DIP-32  | 128k x 8 | 70ns, 5V                            | 6.09   | 5.18   | 3.88   |
| 375953   | AT29LV010A-15JC | PLCC-32 | 128k x 8 | 150ns, 3V, 8k boot block, C-temp.   | 2.39   | 2.23   | 2.07   |
| 74835    | 28F020-15       | DIP-32  | 256k x 8 | 150ns, 5V                           | 7.95   | 7.15   | 6.45   |
| 376121   | AT29C020-90JC   | PLCC-32 | 256k x 8 | 90ns, 5V, I-temp.                   | 3.39   | 3.10   | 3.05   |
| 242616   | 29F020-12       | DIP-32  | 256k x 8 | 120ns, 5V                           | 5.35   | 5.15   | 4.95   |
| 375988   | AT29LV020-20JC  | PLCC-32 | 256k x 8 | 200ns, 3V, Com.-temp.               | 3.39   | 3.14   | 3.10   |
| 375814   | AT49BV020A-70JC | PLCC-32 | 256k x 8 | 70ns, 2.7V, 16k boot block, I-temp. | 1.65   | 1.58   | 1.50   |
| 376366   | AT49F002A-55JC  | PLCC-32 | 256k x 8 | 55ns, 5V, 16k boot block, I-temp.   | 2.05   | 1.91   | 1.77   |
| 242659   | 29F040-120      | DIP-32  | 512k x 8 | 120ns, 5V                           | 8.95   | 8.65   | 8.25   |
| 242667   | 29F040-90       | DIP-32  | 512k x 8 | 90ns, 5V                            | 9.05   | 8.60   | 8.15   |
| 375996   | AT29LV040A-15JC | PLCC-32 | 512k x 8 | 150ns, 3V                           | 4.39   | 4.20   | 4.10   |
| 375911   | AT49BV040A-70JC | PLCC-32 | 512k x 8 | 70ns, 2.7V, 16k boot block, I-temp. | 1.79   | 1.76   | 1.73   |
| 277288   | 29F800-120      | TSOP-48 | 1M x 8   | 120ns, 5V                           | 3.25   | 3.12   | 2.95   |

Blue Part No. = Limited Quantity Available

This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product

This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.



## Flash Memory

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| Part No. | Cross Ref.    | Pkg.    | Config.  | Description                   | 1      | 10     | 100    |
|----------|---------------|---------|----------|-------------------------------|--------|--------|--------|
| 698373   | M29F040B45K1  | PLCC-32 | 512k x 8 | 45ns, 5V, uniform block       | \$4.09 | \$3.87 | \$3.65 |
| 698381   | M29F040B70K6  | PLCC-32 | 512k x 8 | 70ns, 5V, uniform block       | 3.29   | 3.02   | 2.85   |
| 698390   | M29F400B845N1 | TSOP-48 | 512k x 8 | 45ns, 5V, bottom boot         | 2.29   | 2.22   | 2.15   |
| 698402   | M29W040B90K1  | PLCC-32 | 512k x 8 | 90ns, 2.7-3.6V, uniform block | 2.59   | 2.30   | 1.99   |

## MICRON DDR SDRAM

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| Part No. | Cross Ref.       | Pkg.    | Config.  | Description            | 1       | 10      | 100    |
|----------|------------------|---------|----------|------------------------|---------|---------|--------|
| 699093   | MT46V16M16FG-6F  | FBGA-60 | 16M x 16 | 333MHz, 6ns            | \$10.65 | \$10.32 | \$9.22 |
| 699106   | MT46V16M16P-6T   | TSOP-66 | 16M x 16 | 333MHz, 6ns            | 7.95    | 7.72    | 7.50   |
| 699114   | MT46V16M16TG-5B  | TSOP-66 | 16M x 16 | 400MHz, 5ns            | 8.45    | 8.21    | 7.97   |
| 699122   | MT46V16M16TG-6T  | TSOP-66 | 16M x 16 | 333MHz, 6ns            | 7.09    | 6.99    | 6.89   |
| 699131   | MT46V16M16TG-75F | TSOP-66 | 16M x 16 | 266MHz, 7.5ns          | 7.09    | 6.99    | 6.93   |
| 699149   | MT46V32M16P-6F   | FBGA-60 | 32M x 16 | 333MHz, 6ns            | 28.69   | 26.99   | 24.99  |
| 699165   | MT46V32M16P-6T   | TSOP-66 | 32M x 16 | 333MHz, 6ns            | 15.99   | 13.89   | 13.09  |
| 699181   | MT46V32M16TG-6T  | TSOP-66 | 32M x 16 | 333MHz, 6ns, ind. temp | 16.89   | 16.39   | 15.09  |
| 699202   | MT46V32M16TG-6T  | TSOP-66 | 32M x 16 | 333MHz, 6ns            | 13.49   | 13.11   | 12.09  |

## MICRON SDRAM

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| Part No. | Cross Ref.          | Pkg.    | Config.  | Description                  | 1       | 10      | 100     |
|----------|---------------------|---------|----------|------------------------------|---------|---------|---------|
| 699229   | MT48LC16M16A2BG-75D | FBGA-54 | 16M x 16 | 133MHz, 7.5ns                | \$13.49 | \$13.11 | \$12.73 |
| 699237   | MT48LC16M16A2FG-75D | FBGA-54 | 16M x 16 | 133MHz, 7.5ns, ind. temp     | 16.19   | 15.74   | 14.49   |
| 699245   | MT48LC16M16A2FG-75D | FBGA-54 | 16M x 16 | 133MHz, 7.5ns                | 13.49   | 13.11   | 12.09   |
| 699253   | MT48LC16M16A2P-75D  | TSOP-54 | 16M x 16 | 133MHz, 7.5ns, ind. temp     | 13.49   | 13.11   | 12.45   |
| 699261   | MT48LC16M16A2P-75D  | TSOP-54 | 16M x 16 | 133MHz, 7.5ns                | 12.09   | 11.78   | 11.45   |
| 699270   | MT48LC16M16A2P-75D  | TSOP-54 | 16M x 16 | 133MHz, 7.5ns                | 12.09   | 11.78   | 11.45   |
| 699288   | MT48LC16M16A2TG-6A  | TSOP-54 | 16M x 16 | 167MHz, 6ns                  | 12.99   | 12.65   | 11.63   |
| 699296   | MT48LC16M16A2TG-75D | TSOP-54 | 16M x 16 | 133MHz, 7.5ns, ind. temp     | 13.49   | 13.11   | 12.09   |
| 699309   | MT48LC16M16A2TG-75D | TSOP-54 | 16M x 16 | 133MHz, 7.5ns, low power     | 13.49   | 13.11   | 12.09   |
| 699317   | MT48LC16M16A2TG-75D | TSOP-54 | 16M x 16 | 133MHz, 7.5ns                | 12.09   | 11.80   | 10.85   |
| 699325   | MT48LC16M16A2TG-75D | TSOP-54 | 16M x 16 | 133MHz, 7.5ns                | 12.09   | 11.78   | 11.45   |
| 699333   | MT48LC16M16A2TG-75D | TSOP-54 | 16M x 16 | 133MHz, 7.5ns                | 10.99   | 10.89   | 10.85   |
| 699341   | MT48LC2M32B2P-75G   | TSOP-86 | 2M x 32  | 143MHz, 5.5ns                | 5.99    | 5.79    | 5.64    |
| 699350   | MT48LC2M32B2TG-55G  | TSOP-86 | 2M x 32  | 183MHz, 5ns                  | 5.99    | 5.81    | 5.35    |
| 699368   | MT48LC2M32B2TG-6G   | TSOP-86 | 2M x 32  | 166MHz, 5.5ns                | 5.98    | 5.81    | 5.35    |
| 699376   | MT48LC2M32B2TG-75G  | TSOP-86 | 2M x 32  | 143MHz, 5.5ns, extended temp | 6.75    | 6.37    | 5.87    |
| 699384   | MT48LC2M32B2TG-75G  | TSOP-86 | 2M x 32  | 143MHz, 5.5ns                | 5.98    | 5.81    | 5.35    |
| 699392   | MT48LC2M32B2TG-75G  | TSOP-86 | 2M x 32  | 143MHz, 5.5ns                | 5.98    | 5.81    | 5.35    |
| 699405   | MT48LC32M16A2TG-75D | TSOP-54 | 32M x 16 | 133MHz, 7.5ns, ind. temp     | 59.99   | 58.99   | 57.09   |
| 699413   | MT48LC32M16A2TG-75D | TSOP-54 | 32M x 16 | 133MHz, 7.5ns                | 43.99   | 42.99   | 41.69   |
| 699421   | MT48LC32M8A2TG-75D  | TSOP-54 | 32M x 8  | 133MHz, 7.5ns                | 12.19   | 11.80   | 10.85   |
| 699430   | MT48LC32M8A2TG-75D  | TSOP-54 | 32M x 8  | 133MHz, 7.5ns                | 11.29   | 10.99   | 10.85   |
| 699448   | MT48LC4M16A2P-75G   | TSOP-54 | 4M x 16  | 133MHz, 7.5ns                | 5.79    | 5.29    | 4.99    |
| 699456   | MT48LC4M16A2TG-75G  | TSOP-54 | 4M x 16  | 133MHz, 7.5ns, ind. temp     | 6.19    | 5.99    | 5.51    |
| 699464   | MT48LC4M16A2TG-75G  | TSOP-54 | 4M x 16  | 133MHz, 7.5ns, ind. temp     | 6.19    | 5.99    | 5.51    |
| 699472   | MT48LC4M16A2TG-75G  | TSOP-54 | 4M x 16  | 133MHz, 7.5ns                | 5.49    | 5.25    | 4.83    |
| 699481   | MT48LC4M16A2TG-75G  | TSOP-54 | 4M x 16  | 133MHz, 7.5ns                | 5.49    | 5.25    | 4.99    |
| 699499   | MT48LC4M16A2TG-75G  | TSOP-54 | 4M x 16  | 133MHz, 7.5ns                | 5.49    | 5.34    | 4.92    |
| 699501   | MT48LC64M8A2TG-75G  | TSOP-54 | 16M x 8  | 100MHz, 6ns                  | 45.35   | 43.99   | 41.68   |
| 699510   | MT48LC8M8A2TG-75G   | TSOP-54 | 8M x 8   | 133MHz, 7.5ns                | 5.49    | 5.25    | 4.83    |



## NVRAM with RTC

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| Part No. | Cross Ref.      | Pkg.    | Config. | Description                       | 1       | 10      | 100     |
|----------|-----------------|---------|---------|-----------------------------------|---------|---------|---------|
| 698429   | M48T02-150PC1   | DIP-24  | 2k x 8  | 5V, 150ns, 16kbit timekpr SRAM    | \$12.65 | \$11.94 | \$10.85 |
| 698437   | M48T08-150PC1   | DIP-28  | 8k x 8  | 5V, 150ns, 64kbit timekpr SRAM .. | 15.79   | 14.55   | 13.73   |
| 698445   | M48T12-150PC1   | DIP-24  | 2k x 8  | 5V, 150ns, 16kbit timekpr SRAM .. | 12.65   | 11.75   | 10.85   |
| 698453   | M48T18-150PC1   | DIP-28  | 8k x 8  | 5V, 150ns, 64kbit timekpr SRAM .. | 15.79   | 14.55   | 13.73   |
| 698461   | M48T35AV-10MHTE | SOIC-28 | 32k x 8 | 3.3V, 10ns, 256kbit timekpr SRAM  | 14.35   | 13.94   | 13.54   |
| 698470   | M48T35AV-10PC1  | DIP-28  | 32k x 8 | 3.3V, 10ns, 256kbit timekpr SRAM  | 16.79   | 15.52   | 13.78   |
| 698488   | M48T35V-70PC1   | DIP-28  | 32k x 8 | 5V, 70ns, 256kbit timekpr SRAM .. | 14.45   | 13.68   | 12.90   |



Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## Legacy DRAM

| Part No.               | Cross Ref. | Pkg.   | Config.   | Description                | 1      | 10     | 100    |
|------------------------|------------|--------|-----------|----------------------------|--------|--------|--------|
| 41662                  | 4164-150   | DIP-16 | 64k x 1   | 150ns (MCM6665-15) .....   | \$ .59 | \$ .53 | \$ .48 |
| 41574                  | 41464-10   | DIP-18 | 64k x 4   | 100ns (HY53C464S-10) ..... | 1.69   | 1.65   | 1.59   |
| 41398                  | 41256-120  | DIP-16 | 256k x 1  | 120ns (MB81256-12) .....   | .73    | .62    | .47    |
| 42315                  | 514256P-80 | DIP-20 | 256k x 4  | 80ns (UPD424256-80) .....  | 2.49   | 2.25   | 2.05   |
| 93374                  | 514256P-70 | DIP-20 | 256k x 4  | 70ns (TC514256P-70) .....  | 2.79   | 2.49   | 2.19   |
| 128688                 | HM514260   | SOJ    | 256k x 16 | 70ns .....                 | 3.39   | 3.05   | 2.75   |
| 42219                  | 511000P-10 | DIP-18 | 1M x 1    | 100ns (M5M4C1000-10) ..... | 2.59   | 2.33   | 2.10   |
| ♣ Pull = Extra Savings |            |        |           |                            |        |        |        |

## Legacy Memory Modules

| Part No. | Cross Ref. No. | Capacity | Description         | Config.  | Pins | 1       | 10      |
|----------|----------------|----------|---------------------|----------|------|---------|---------|
| 148419   | 16MBX64SDRAM   | 128MB    | 10ns Syn. DRAM DIMM | 16M x 64 | 168  | \$65.95 | \$59.95 |
| 148451   | JEED07264      | 64MB     | 60ns SIMM EDO       | 16M x 32 | 72   | 30.95   | 28.95   |
| 148460   | 8MBX36-60      | 32MB     | 60ns SIMM           | 8M x 36  | 72   | 40.95   | 30.71   |
| 148443   | JEED07232      | 32MB     | 60ns SIMM EDO       | 8M x 32  | 72   | 43.95   | 32.96   |
| 130729   | JEED07208      | 8MB      | 60ns SIMM EDO       | 2M x 32  | 72   | 3.95    | 3.58    |
| 41751    | 421000A9B-70   | 1MB      | 70ns SIMM           | 1M x 9   | 30   | 4.95    | 3.71    |

## Static RAM

| Part No.  | Cross Ref.      | Pkg.     | Config. | Description                         | 1      | 10     | 100    |
|---|-----------------|----------|---------|-------------------------------------|--------|--------|--------|
| 38931   | 2111-1          | DIP-18   | 256 x 4 | 1-Kbit, 5V, 500ns .....             | \$1.69 | \$1.55 | \$1.35 |
| 42198   | 5101            | DIP-22   | 256 x 4 | 1-Kbit, 5V, 450ns .....             | 7.99   | 7.19   | 6.49   |
| 38957   | 2114N           | DIP-18   | 1k x 4  | 4-Kbit, 5V, 450ns .....             | 2.29   | 1.99   | 1.79   |
| 43238   | 6514            | DIP-18   | 1k x 4  | 4-Kbit, 5V, 300ns .....             | 3.95   | 3.65   | 3.35   |
| 38973   | 2114N-2         | DIP-18   | 1k x 4  | 4-Kbit, 5V, 200ns .....             | 2.49   | 2.09   | 1.89   |
| 38981   | 2114N-2L        | DIP-18   | 1k x 4  | 4-Kbit, 5V, 450ns, LP .....         | 2.25   | 2.05   | 1.85   |
| 392243  | CY7C131-55JC    | PLCC-52  | 1k x 8  | 8-Kbit, 5V, 55ns .....              | 5.75   | 4.89   | 3.67   |
| 392462  | CY7C4225V-15ASC | STOFP-64 | 1k x 18 | 18-Kbit, 3.3V, 15ns Synch. FIFO ..  | 17.79  | 17.61  | 17.42  |
| 38746   | 2016-20         | DIP-24   | 2k x 8  | 16-Kbit, 5V, 200ns .....            | .80    | .73    | .66    |
| 698517  | M48Z02-200PC1   | DIP-24   | 2k x 8  | 16-Kbit, 5V, 200ns, zero power ..   | 7.15   | 6.79   | 6.39   |
| 114260  | DS1220Y-150     | DIP-24   | 2k x 8  | 16-Kbit, 5V, 150ns, NV SRAM .....   | 11.95  | 10.95  | 9.85   |
| 698509  | M48Z02-150PC1   | DIP-24   | 2k x 8  | 16-Kbit, 5V, 150ns, zero power ..   | 8.75   | 7.99   | 7.24   |
| 698533  | M48Z12-150PC1   | DIP-24   | 2k x 8  | 16-Kbit, 5V, 150ns, zero power ..   | 9.35   | 8.54   | 7.73   |
| 25911   | MK48Z02B-15     | DIP-24   | 2k x 8  | 16-Kbit, 5V, 150ns .....            | 7.25   | 6.70   | 6.35   |
| 42809   | 6116P-3         | DIP-24   | 2k x 8  | 16-Kbit, 5V, 150ns .....            | 1.49   | 1.29   | 1.09   |
| 42753   | 6116LP-3        | DIP-24   | 2k x 8  | 16-Kbit, 5V, 150ns, LP .....        | 1.95   | 1.75   | 1.59   |
| 38738   | 2016-12         | DIP-24   | 2k x 8  | 16-Kbit, 5V, 120ns .....            | 1.25   | 1.06   | .80    |
| 42796   | 6116P-2         | DIP-24   | 2k x 8  | 16-Kbit, 5V, 120ns .....            | 1.59   | 1.39   | 1.29   |
| 42788   | 6116P-1         | DIP-24   | 2k x 8  | 16-Kbit, 5V, 100ns .....            | 1.69   | 1.49   | 1.39   |
| 42737   | 6116LP-1        | DIP-24   | 2k x 8  | 16-Kbit, 5V, 100ns, LP .....        | 1.99   | 1.79   | 1.65   |
| 242675  | 6116-70         | DIP-24   | 2k x 8  | 16-Kbit, 5V, 70ns .....             | 2.09   | 1.78   | 1.33   |
| 242712  | CY7C128A-15     | DIP-24   | 2k x 8  | 16-Kbit, 5V, 15ns, Async. ....      | 4.15   | 3.53   | 2.65   |
| 242704  | CY7C128A-25     | DIP-24   | 2k x 8  | 16-Kbit, 5V, 25ns, Async. ....      | 1.79   | 1.61   | 1.45   |
| 242691  | CY7C128A-35     | DIP-24   | 2k x 8  | 16-Kbit, 5V, 35ns, Async. ....      | 3.65   | 1.94   | 1.56   |
| 392446  | CY7C4235V-15ASC | STOFP-64 | 2k x 18 | 36-Kbit, 3.3V, 15ns, Synch. FIFO .. | 16.59  | 16.34  | 16.08  |
| 392294  | CY6264-70SNC    | SOIC-28  | 8k x 8  | 64-Kbit, 5V, 70ns .....             | 3.09   | 2.63   | 1.97   |
| 85121   | 6264LP-70       | DIP-28   | 8k x 8  | 64-Kbit, 5V, 70ns, LP .....         | 3.39   | 3.05   | 2.75   |
| 42884   | 6264LP-10       | DIP-28   | 8k x 8  | 64-Kbit, 5V, 100ns, LP .....        | 2.75   | 2.49   | 2.25   |
| 42921   | 6264P-10        | DIP-28   | 8k x 8  | 64-Kbit, 5V, 100ns .....            | 2.59   | 2.05   | 1.99   |
| 698525  | M48Z08-100PC1   | DIP-28   | 8k x 8  | 64-Kbit, 5V, 100ns, zero power ..   | 11.75  | 11.05  | 10.65  |
| 698541  | M48Z18-100PC1   | DIP-28   | 8k x 8  | 64-Kbit, 5V, 100ns, zero power ..   | 10.95  | 10.25  | 9.55   |
| 42892   | 6264LP-12       | DIP-28   | 8k x 8  | 64-Kbit, 5V, 120ns, LP .....        | 2.79   | 2.49   | 2.19   |
| 42930   | 6264P-12        | DIP-28   | 8k x 8  | 64-Kbit, 5V, 120ns .....            | 2.65   | 2.39   | 2.15   |
| 114278  | DS1225AB-150    | DIP-28   | 8k x 8  | 64-Kbit, 5V, 150ns, NV SRAM ....    | 15.99  | 12.65  | 9.89   |
| 114307  | DS1225Y-200     | DIP-28   | 8k x 8  | 64-Kbit, 5V, 200ns, NV SRAM ....    | 15.95  | 14.49  | 11.65  |
| 242341  | CY7C185-25      | DIP-28   | 8k x 8  | 64-Kbit, 5V, 25ns Async. ....       | 2.59   | 2.05   | 1.79   |
| 242333  | CY7C185-35      | DIP-28   | 8k x 8  | 64-Kbit, 5V, 35ns Async. ....       | 3.29   | 2.80   | 2.10   |
| 242499  | DS1230Y-70      | DIP-28   | 32k x 8 | 256-Kbit, 5V, 70ns, NV SRAM .....   | 19.85  | 15.35  | 12.75  |
| 177113  | DS1230Y-100     | DIP-28   | 32k x 8 | 256-Kbit, 5V, 100ns, NV SRAM .....  | 17.55  | 14.60  | 11.75  |
| 114323  | DS1230Y-150     | DIP-28   | 32k x 8 | 256-Kbit, 5V, 150ns, NV SRAM .....  | 20.25  | 17.10  | 10.25  |
| 41970   | 43256-10L       | DIP-28   | 32k x 8 | 256-Kbit, 5V, 100ns, LP .....       | 5.49   | 4.99   | 4.49   |
| 41988   | 43256-12L       | DIP-28   | 32k x 8 | 256-Kbit, 5V, 120ns, LP .....       | 4.99   | 4.49   | 4.09   |
| ♣ Pull = Extra Savings    ⚙ Blue Part No. = Limited Quantity Available  |                 |          |         |                                     |        |        |        |
| ♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD. |                 |          |         |                                     |        |        |        |

## Static RAM (Cont.)

| Part No.   | Cross Ref.         | Pkg.     | Config.   | Description                        | 1      | 10     | 100    |
|--|--------------------|----------|-----------|------------------------------------|--------|--------|--------|
| 242376   | CY7C199P-35        | DIP-28   | 32k x 8   | 256-Kbit, 5V, 35ns, LP Async. .... | \$1.99 | \$1.69 | \$1.27 |
| 75037  | UM61M256K-15       | DIP-28   | 32k x 8   | 256-Kbit, 5V, 15ns .....           | 3.39   | 2.99   | 2.69   |
| 82472  | 62256LP-70         | DIP-28   | 32k x 8   | 256-Kbit, 5V, 70ns, LP .....       | 4.95   | 4.50   | 4.05   |
| 391793   | CY62256L-70PC      | DIP-28   | 32k x 8   | 256-Kbit, 5V, 70ns .....           | 2.85   | 2.42   | 1.82   |
| 391814   | CY62256L-70SNC     | SOIC-28  | 32k x 8   | 256-Kbit, 5V, 70ns .....           | 2.55   | 2.05   | 1.65   |
| 391822   | CY62256L-70PC      | DIP-28   | 32k x 8   | 256-Kbit, 5V, 70ns, LP .....       | 2.85   | 2.30   | 1.80   |
| 391890   | CY62256L-70SNC     | SOIC-28  | 32k x 8   | 256-Kbit, 5V, 70ns, LP .....       | 2.85   | 2.42   | 1.82   |
| 391945   | CY62256L-70ZC      | TSSOP-28 | 32k x 8   | 256-Kbit, 5V, 70ns, LP .....       | 2.85   | 2.42   | 1.82   |
| 391865   | CY62256VLL-70ZC    | TSSOP-28 | 32k x 8   | 256-Kbit, 3V, 70ns, LP .....       | 2.05   | 1.74   | 1.38   |
| 279814   | 62256S-70          | SOJ-28   | 32k x 8   | 256-Kbit, 5V, 70ns .....           | 1.99   | 1.79   | 1.61   |
| 42876  | 62256LP-85         | DIP-28   | 32k x 8   | 256-Kbit, 5V, 85ns, LP .....       | 3.09   | 2.49   | 1.99   |
| 42833  | 62256LP-10         | DIP-28   | 32k x 8   | 256-Kbit, 5V, 100ns, LP .....      | 3.75   | 3.20   | 2.40   |
| 42850  | 62256LP-12         | DIP-28   | 32k x 8   | 256-Kbit, 5V, 120ns, LP .....      | 3.89   | 3.49   | 3.19   |
| 391857   | CY7C1399B-12VC     | SOJ-28   | 32k x 8   | 256-Kbit, 3.3V, 12ns, Async. ....  | 1.55   | 1.50   | 1.48   |
| 279831   | CY7C199-25V        | SOJ-28   | 32k x 8   | 256-Kbit, 5V, 25ns, Async. ....    | 1.65   | 1.39   | 1.05   |
| 392382   | CY7C464A-15JC      | PLCC-32  | 32k x 9   | 256-Kbit, 5V, 15ns, Async. FIFO .. | 27.09  | 26.62  | 26.14  |
| 693935   | M5M5258P-35        | DIP-24   | 64k x 4   | 256-Kbit, 5V, 35ns .....           | 1.95   | 1.75   | 1.59   |
| 391873   | CY7C1021CV33-12VC  | SOJ-44   | 64k x 16  | 1-Mbit, 3.3V, 12ns, Async. ....    | 2.35   | 2.00   | 1.90   |
| 391929   | CY7C1021BV33L-15ZC | TSSOP-44 | 64k x 16  | 1-Mbit, 3.3V, 15ns, LP Async. .... | 3.29   | 2.80   | 2.76   |
| 391831   | CY62128BL-70SC     | SOIC-32  | 128k x 8  | 1-Mbit, 5V, 70ns, LP .....         | 2.45   | 2.05   | 1.85   |
| 391996   | CY62128BL-70ZC     | TSSOP-32 | 128k x 8  | 1-Mbit, 5V, 70ns, LP .....         | 2.85   | 2.30   | 2.10   |
| 279873   | 628128S-70         | SOP-32   | 128k x 8  | 1-Mbit, 5V, 70ns .....             | 2.49   | 2.19   | 1.89   |
| 131810   | 628128LP-70        | DIP-32   | 128k x 8  | 1-Mbit, 5V, 70ns, LP .....         | 8.99   | 7.39   | 6.69   |
| 103982   | 628128LP-85        | DIP-32   | 128k x 8  | 1-Mbit, 5V, 85ns, LP .....         | 8.49   | 7.22   | 5.41   |
| 391902   | CY7C1019CV33-12VC  | SOJ-32   | 128k x 8  | 1-Mbit, 3.3V, 12ns, Async. ....    | 2.55   | 2.05   | 1.90   |
| 392251   | CY7C1009B-15VC     | SOJ-32   | 128k x 8  | 1-Mbit, 5V, 15ns, Async. ....      | 3.55   | 2.86   | 2.25   |
| 392358   | CY7C1041CV33-12ZC  | TSSOP-44 | 256k x 16 | 1-Mbit, 3.3V, 12ns, Async. ....    | 4.35   | 4.00   | 3.77   |
| 280031   | CY7C1041B-15VC     | SOJ-44   | 256k x 16 | 4-Mbit, 5V, 15ns, Async. ....      | 8.09   | 7.09   | 6.40   |
| 392198   | CY7C1041B-15ZC     | TSSOP-44 | 256k x 16 | 4-Mbit, 5V, 15ns, Async. ....      | 4.69   | 4.59   | 4.49   |
| 157358   | 628512LP-70        | DIP-32   | 512k x 8  | 4-Mbit, 5V, 70ns, LP .....         | 18.99  | 16.99  | 16.19  |
| 280049   | 628512S-70         | SOP-32   | 512k x 8  | 4-Mbit, 5V, 20ns, Async. ....      | 5.49   | 4.95   | 4.45   |
| 280065   | CY7C1049B-20VC     | SOJ-36   | 512k x 8  | 4-Mbit, 5V, 70ns, Async. ....      | 9.39   | 8.56   | 7.79   |
| ♣ Pull = Extra Savings    ⚙ Blue Part No. = Limited Quantity Available |                    |          |           |                                    |        |        |        |

## PALs and GALs

| Part No. | Cross Ref.  | Pkg.   | Description                             | 1      | 10     | 100    |
|----------|-------------|--------|---|--------|--------|--------|
| 28020    | PAL16L8     | DIP-20 | Octal 16-input AND-OR-INVERT gate array | \$2.25 | \$1.75 | \$1.31 |
| 652615   | 16V8-7      | DIP-20 | 7ns 64 x 32 AND array .....             | 3.25   | 2.49   | 2.25   |
| 88399    | 16V8-10     | DIP-20 | 10ns 64 x 32 AND array .....            | 1.99   | 1.79   | 1.59   |
| 37452    | 16V8-15     | DIP-20 | 15ns 64 x 32 AND array .....            | 1.39   | 1.25   | 1.12   |
| 37461    | 16V8-25     | DIP-20 | 25ns 64 x 32 AND array .....            | 1.25   | 1.09   | .99    |
| 105953   | 18CV8P-25   | DIP-20 | 25ns .....                              | 2.25   | 1.99   | 1.79   |
| 88292    | 20V8-10     | DIP-24 | 10ns 64 x 40 AND array .....            | 1.85   | 1.57   | 1.18   |
| 38658    | 20V8-15     | DIP-24 | 15ns 64 x 40 AND array .....            | 1.55   | 1.25   | 1.15   |
| 38666    | 20V8-25     | DIP-24 | 25ns 64 x 40 AND array .....            | 1.69   | 1.49   | 1.39   |
| 105996   | 22CV10AP-25 | DIP-24 | 25ns .....                              | 2.59   | 2.20   | 1.65   |
| 123801   | 22V10-10    | DIP-24 | 10ns 132 x 44 AND array .....           | 5.49   | 4.99   | 4.49   |
| 39159    | 22V10-15    | DIP-24 | 15ns 132 x 44 AND array .....           | 4.49   | 3.95   | 3.55   |
| 39167    | 22V10-25    | DIP-24 | 25ns 132 x 44 AND array .....           | 3.99   | 3.49   | 3.09   |

GALs are electrically erasable, CMOS PLDs that can be reprogrammed and can be used in place of numerous PALs

\* Replaces PALs: 10H8, 10L8, 10P8, 12H6, 12L6, 12P6, 14H4, 14L4, 14P4, 16H2, 16H8, 16L2, 16L8, 16P2, 16P8, 16R4, 16R6, 16R8, 16RP4, 16RP6, 16RP8, 14H8, 14L8, 14P8, 16H6, 16L6, 16P6

\*\* Replaces PALs: 18H4, 18L4, 18P4, 20H2, 20H8, 20L2, 20L8, 20P2, 20P8, 20R4, 20R6, 20R8, 20RP4, 20RP6, 20RP8

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| Part No. | Cross Ref.      | Pkg.    | Description                             | 1      | 10     | 100    |
|----------|-----------------|---------|---|--------|--------|--------|
| 846559   | ATF16V8BQL-15JL | PLCC-20 | 15ns, 10 inputs, 8 I/O, I-temp, qtr pwr | \$2.39 | \$1.98 | \$1.82 |
| 846575   | ATF16V8BQL-15JU | PLCC-20 | 15ns, 10 inputs, 8 I/O, I-temp, qtr pwr | 2.15   | 1.74   | 1.54   |
| 846604   | ATF16V8BQL-15PC | DIP-20  | 15ns, 10 inputs, 8 I/O, C-temp, qtr pwr | 1.43   | .97    | .93    |
| 846639   | ATF16V8BQL-15PL | DIP-20  | 15ns, 10 inputs, 8 I/O, I-temp, qtr pwr | 2.19   | 2.03   | 1.89   |
| 846559   | ATF16V8BQL-15JL | PLCC-20 | 15ns, 10 inputs, 8 I/O, I-temp, qtr pwr | 2.39   | 1.98   | 1.82   |
| 846575   | ATF16V8BQL-15JU | PLCC-20 | 15ns, 10 inputs, 8 I/O, I-temp, qtr pwr | 2.15   | 1.74   | 1.54   |

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## EEPLDs (Continued)

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| Part No. | Cross Ref.       | Pkg.     | Description                                | 1      | 10     | 100    |
|----------|------------------|----------|--|--------|--------|--------|
| 846604   | ATF16V8BQL-15PC  | DIP-20   | 15ns, 10 inputs, 8 I/O, C-temp., qtr pwr   | \$1.43 | \$ .97 | \$ .93 |
| 846639   | ATF16V8BQL-15PI  | DIP-20   | 15ns, 10 inputs, 8 I/O, I-temp., qtr pwr   | 2.19   | 2.03   | 1.89   |
| 846663   | ATF16V8BQL-15PU  | DIP-20   | 15ns, 10 inputs, 8 I/O, I-temp., qtr pwr   | 2.15   | 1.74   | 1.54   |
| 764191   | ATF16V8C-5JC     | PLCC-20  | 5ns, 10 inputs, 8 I/O, C-temp.             | 2.09   | 2.02   | 1.97   |
| 764211   | ATF16V8C-15PI    | DIP-20   | 15ns, 10 inputs, 8 I/O, I-temp.            | 2.99   | 2.89   | 2.81   |
| 764238   | ATF20V8B-10PC    | DIP-24   | 10ns, 14 inputs, 8 I/O, C-temp.            | 1.49   | 1.45   | 1.41   |
| 764262   | ATF20V8B-15PC    | DIP-24   | 15ns, 14 inputs, 8 I/O, C-temp.            | .99    | .96    | .94    |
| 764289   | ATF20V8BQL-15PC  | DIP-24   | 15ns, 14 inputs, 8 I/O, C-temp., qtr pwr   | 1.29   | 1.25   | 1.22   |
| 764297   | ATF20V8BQL-15SC  | SOIC-24  | 15ns, 14 inputs, 8 I/O, C-temp., qtr pwr   | 1.79   | 1.74   | 1.69   |
| 846698   | ATF22V10C-10JC   | PLCC-28  | 10ns, 12 inputs, 10 I/O, C-temp.           | 2.19   | 2.00   | 1.81   |
| 764318   | ATF22V10C-10JL   | PLCC-28  | 10ns, 12 inputs, 10 I/O, I-temp.           | 2.65   | 2.53   | 2.45   |
| 764351   | ATF22V10C-10SC   | SOIC-24  | 10ns, 12 inputs, 10 I/O, C-temp.           | 2.09   | 2.02   | 1.97   |
| 846727   | ATF22V10C-15JC   | PLCC-28  | 15ns, 12 inputs, 10 I/O, C-temp.           | 2.05   | 1.94   | 1.76   |
| 846743   | ATF22V10C-15PC   | DIP-24   | 15ns, 12 inputs, 10 I/O, C-temp.           | 2.25   | 1.86   | 1.70   |
| 764369   | ATF22V10C-15PI   | DIP-24   | 15ns, 12 inputs, 10 I/O, I-temp.           | 2.25   | 2.18   | 2.12   |
| 846778   | ATF22V10C-15PU   | DIP-24   | 15ns, 12 inputs, 10 I/O, I-temp.           | 2.45   | 1.99   | 1.95   |
| 764393   | ATF22V10C-15SC   | SOIC-24  | 15ns, 12 inputs, 10 I/O, C-temp.           | 1.79   | 1.74   | 1.69   |
| 764414   | ATF22V10CQ-15JC  | PLCC-28  | 15ns, 12 inputs, 10 I/O, C-temp., qtr pwr  | 1.99   | 1.93   | 1.87   |
| 764449   | ATF22V10CQ-15PC  | DIP-24   | 15ns, 12 inputs, 10 I/O, C-temp., qtr pwr  | 1.99   | 1.93   | 1.87   |
| 764465   | ATF22V10CQZ-20JC | PLCC-28  | 20ns, 12 inputs, 10 I/O, C-temp., qtr pwr  | 2.49   | 2.41   | 2.34   |
| 846807   | ATF22V10CQZ-20JL | PLCC-28  | 20ns, 12 inputs, 10 I/O, I-temp., qtr pwr  | 4.25   | 4.19   | 3.53   |
| 846831   | ATF22V10CQZ-20PC | DIP-28   | 20ns, 12 inputs, 10 I/O, C-temp., qtr pwr  | 3.39   | 3.37   | 2.81   |
| 764473   | ATF22V10CQZ-20PI | DIP-24   | 20ns, 12 inputs, 10 I/O, I-temp., qtr pwr  | 3.09   | 3.01   | 2.92   |
| 764490   | ATF22V10CZ-15PC  | DIP-24   | 15ns, 12 inputs, 10 I/O, C-temp., zero pwr | 4.79   | 4.63   | 4.50   |
| 764511   | ATF22V10CZ-15SC  | SOIC-24  | 15ns, 12 inputs, 10 I/O, C-temp., zero pwr | 4.79   | 4.63   | 4.50   |
| 764107   | ATF16LV8C-10JC   | PLCC-20  | 10ns, 10 inputs, 8 I/O, C-temp.            | 3.25   | 3.14   | 3.05   |
| 764115   | ATF16LV8C-15XC   | TSSOP-20 | 15ns, 10 inputs, 8 I/O, C-temp.            | 1.89   | 1.83   | 1.78   |
| 764140   | ATF16V8B-10JC    | PLCC-20  | 10ns, 10 inputs, 8 I/O, C-temp.            | .83    | .81    | .79    |
| 846452   | ATF16V8B-15JC    | PLCC-20  | 15ns, 10 inputs, 8 I/O, C-temp.            | 1.49   | 1.24   | 1.13   |
| 764158   | ATF16V8B-15JU    | PLCC-20  | 15ns, 10 inputs, 8 I/O, I-temp.            | 1.59   | 1.50   | 1.46   |
| 846479   | ATF16V8B-15PC    | DIP-20   | 15ns, 10 inputs, 8 I/O, C-temp.            | 1.20   | .99    | .91    |
| 846495   | ATF16V8B-15PU    | DIP-20   | 15ns, 10 inputs, 8 I/O, C-temp.            | 1.59   | 1.47   | 1.35   |
| 764174   | ATF16V8B-15SC    | SOIC-20  | 15ns, 10 inputs, 8 I/O, C-temp.            | .61    | .60    | .58    |
| 846524   | ATF16V8BQL-15JC  | PLCC-20  | 15ns, 10 inputs, 8 I/O, C-temp., qtr pwr   | 1.85   | 1.53   | 1.40   |

## PEEL™ PLDs

PEELs offer the convenience of simple and complex logic reprogrammability.

| Part No. | Product No.   | Pkg.   | Speed | Icc  | Inputs | I/O | Vcc | Temp. | 1      | 10     | 100    |
|----------|---------------|--------|-------|------|--------|-----|-----|-------|--------|--------|--------|
| 312995   | 16CV8P-25     | DIP-20 | 25ns  | 12mA | 10     | 8   | 5   | C     | \$1.19 | \$ .82 | \$ .74 |
| 105953   | 18CV8P-25     | DIP-20 | 25ns  | 25mA | 10     | 8   | 5   | C     | 2.25   | 1.99   | 1.79   |
| 314886   | 22CV10AP1-25  | DIP-24 | 25ns  | 18mA | 12     | 10  | 5   | I     | 2.85   | 2.45   | 1.99   |
| 315205   | 22CV10AP1-10L | DIP-24 | 10ns  | 50mA | 12     | 10  | 5   | C     | 3.49   | 3.15   | 2.04   |
| 105996   | 22CV10AP-25   | DIP-24 | 25ns  | 5µA  | 12     | 10  | 5   | C     | 2.59   | 2.20   | 1.65   |
| 315361   | 22CV10AP-7    | DIP-24 | 7ns   | 50mA | 12     | 10  | 5   | C     | 4.29   | 3.19   | 2.45   |

† I = Industrial Temp range: -40°C to +85°C; C = Commercial Temp. range: 0 to +70°C

## 74HC Series

\* Minimum order 10 pieces

| Part No. | Cross Ref. | Pkg.     | Description                  | 1      | 10     | 100    |
|----------|------------|----------|------------------------------|--------|--------|--------|
| 45161    | 74HC00N    | DIP-14   | Quad 2-input NAND gate       | \$ .22 | \$ .19 | \$ .14 |
| 250966   | SN74HC00N  | DIP-14   | Quad 2-input NAND gate (TI)  | .24    | .21    | .151   |
| 380015   | 74HC00T    | TSSOP-14 | Quad 2-input NAND gate       | * .125 | .094   |        |
| 45188    | 74HC02N    | DIP-14   | Quad 2-input NOR gate        | * .158 | .119   |        |
| 250974   | SN74HC02N  | DIP-14   | Quad 2-input NOR gate (TI)   | .26    | .173   | .156   |
| 380031   | 74HC02T    | TSSOP-14 | Quad 2-input NOR gate        | * .125 | .094   |        |
| 45209    | 74HC04N    | DIP-14   | Hex Inverter                 | .24    | .208   | .176   |
| 250982   | SN74HC07N  | DIP-14   | Hex Inverter (TI)            | .26    | .228   | .193   |
| 45225    | 74HC08N    | DIP-14   | Quad 2-input AND gate        | * .158 | .12    |        |
| 380082   | 74HC08T    | TSSOP-14 | Quad 2-input AND gate        | * .125 | .094   |        |
| 45233    | 74HC10N    | DIP-14   | Triple 3-input NAND gate     | .34    | .279   | .202   |
| 45364    | 74HC14N    | DIP-14   | Hex Schmitt trigger inverter | .22    | .19    | .17    |



◆ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product

◆ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.

## 74HC Series (Continued)

\* Minimum order 10 pieces

| Part No. | Cross Ref.  | Pkg.     | Description   | 1      | 10     | 100    |
|----------|-------------|----------|---|--------|--------|--------|
| 251045   | SN74HC14N   | DIP-14   | Hex Schmitt trigger inverter (TI)                         | \$ .24 | \$ .21 | \$ .17 |
| 380277   | 74HC14T     | TSSOP-14 | Hex Schmitt trigger inverter                              | .36    | .289   | .218   |
| 45794    | 74HC32N     | DIP-14   | Quad 2-input OR gate                                      | .24    | .21    | .15    |
| 380656   | 74HC32T     | TSSOP-14 | Quad 2-input OR gate                                      | * .125 | .094   |        |
| 46130    | 74HC74N     | DIP-14   | Dual D-type pos. edge trig. F-F w/ clear & preset         | .27    | .25    | .22    |
| 381114   | 74HC74T     | TSSOP-14 | Dual D-type pos. edge trig. F-F w/ clear & preset         | * .149 | .112   |        |
| 46172    | 74HC85N     | DIP-16   | 4-bit magnitude comparator                                | .23    | .205   | .154   |
| 46181    | 74HC86N     | DIP-14   | Quad 2-input Exclusive OR gate                            | * .166 | .124   |        |
| 381131   | 74HC86T     | TSSOP-14 | Quad 2-input Exclusive OR gate                            | * .141 | .106   |        |
| 45292    | 74HC123N    | DIP-16   | Dual retrigger. mono. multivibrator w/ reset              | .30    | .243   | .182   |
| 45305    | 74HC125N    | DIP-14   | Quad bus buffer w/ 3-state outputs                        | .28    | .24    | .18    |
| 380120   | 74HC125T    | TSSOP-14 | Quad bus buffer w/ 3-state outputs                        | .20    | .17    | .128   |
| 45321    | 74HC132N    | DIP-14   | Quad pos. NAND gate w/ Schmitt trig. input                | .28    | .234   | .18    |
| 45330    | 74HC138N    | DIP-16   | 3-to-8 decoder/demultiplexer                              | .27    | .229   | .212   |
| 45356    | 74HC139N    | DIP-16   | 2-to-4 decoder/demultiplexer                              | .20    | .17    | .14    |
| 243740   | 74HC139M    | SOIC-16  | 2-to-4 decoder/demultiplexer                              | .40    | .34    | .255   |
| 45401    | 74HC145N    | DIP-24   | 4-to-16 line decoder                                      | \$ .75 | .62    | .527   |
| 380293   | 74HC154T    | TSSOP-24 | 4-to-16 line decoder (0.3"W)                              | .20    | .159   | .138   |
| 380314   | 74HC157T    | TSSOP-16 | Quad 2-to-1 line data selector/multiplexer                | .24    | .204   | .153   |
| 45487    | 74HC164N    | DIP-14   | 8-bit parallel out serial shift register                  | .23    | .208   | .156   |
| 45495    | 74HC165N    | DIP-16   | 8-bit parallel load shift register                        | .32    | .28    | .25    |
| 380429   | 74HC165T    | DIP-16   | 8-bit parallel load shift register                        | .30    | .255   | .191   |
| 45541    | 74HC192N    | DIP-16   | Presetable synch. 4-bit up/down counter                   | 1.59   | 1.45   | 1.29   |
| 45559    | 74HC193N    | DIP-16   | 4-bit synch up/down counter (dual clock w/ clear)         | .30    | .266   | .20    |
| 45604    | 74HC221N    | DIP-16   | Dual monostable multivibrator w/ clear                    | .35    | .304   | .228   |
| 45612    | 74HC240N    | DIP-20   | Octal invert. buffer/line driver w/ 3-st. output          | .34    | .28    | .21    |
| 380488   | 74HC240T    | TSSOP-20 | Octal invert. buffer/line driver w/ 3-st. output          | .25    | .213   | .16    |
| 45655    | 74HC244N    | DIP-20   | Octal buffer/line driver w/ 3-st. output                  | .45    | .39    | .35    |
| 380509   | 74HC244T    | TSSOP-20 | Octal buffer/line driver w/ 3-st. output                  | .25    | .213   | .16    |
| 45671    | 74HC245N    | DIP-20   | Octal bus trans. w/ 3-state output                        | .45    | .38    | .29    |
| 380592   | 74HC245T    | TSSOP-20 | Octal bus trans. w/ 3-state output                        | .25    | .213   | .16    |
| 45743    | 74HC273N    | DIP-20   | Octal D-type flip-flops with clear                        | .39    | .30    | .23    |
| 380630   | 74HC273T    | TSSOP-20 | Octal D-type flip-flops with clear                        | .25    | .213   | .16    |
| 45831    | 74HC373N    | DIP-20   | Octal D-type transparent latches w/ 3-st. out H.O.        | .45    | .39    | .35    |
| 251475   | SN74HC373N  | DIP-20   | Octal D-type transparent latches w/ 3-st. out H.O. (TI)   | .49    | .42    | .38    |
| 380699   | 74HC373T    | TSSOP-20 | Octal D-type transparent latches w/ 3-st. out H.O.        | .25    | .213   | .16    |
| 45858    | 74HC374N    | DIP-20   | Octal edge trig. D-type F-F w/ 3-st. output               | .36    | .311   | .233   |
| 380744   | 74HC374T    | TSSOP-20 | Octal edge trig. D-type F-F w/ 3-st. output               | .25    | .213   | .16    |
| 109760   | 74HC540N    | DIP-20   | Octal buffer/line driver w/ 3-st. output                  | .37    | .31    | .233   |
| 46050    | 74HC541N    | DIP-20   | Octal buffer/line driver w/ 3-st. output NOR gate enabled | .37    | .31    | .24    |
| 46076    | 74HC573N    | DIP-20   | Octal transparent D-type latches w/ 3-st. output          | .31    | .26    | .22    |
| 197245   | 74HC573M    | SOIC-20  | Octal transparent D-type latches w/ 3-st. output          | .21    | .18    | .169   |
| 381034   | 74HC573T    | TSSOP-20 | Octal transparent D-type latches w/ 3-st. output          | .26    | .224   | .202   |
| 46084    | 74HC574N    | DIP-20   | Octal edge trig. D-type F-F w/ 3-st. out. flow thru       | .33    | .27    | .20    |
| 381051   | 74HC574T    | TSSOP-20 | Octal edge trig. D-type F-F w/ 3-st. out. flow thru       | .26    | .221   | .166   |
| 251635   | SN74HC590AN | DIP-16   | 8-bit binary counter w/ output reg. 3-st.                 | .41    | .346   | .304   |
| 46105    | 74HC595N    | DIP-16   | 8-bit shift reg. w/ 3-st. output register                 | .62    | .44    | .39    |
| 251643   | SN74HC595N  | DIP-16   | 8-bit shift reg. w/ 3-st. output register (TI)            | .67    | .48    | .42    |
| 46113    | 74HC688N    | DIP-20   | 8-bit identity comparators                                | .44    | .37    | .278   |
| 45891    | 74HC4017N   | DIP-16   | decade ctr/div w/ decoded output                          | .50    | .46    | .428   |
| 45920    | 74HC4040N   | DIP-16   | 12-bit asynch binary counter                              | .25    | .207   | .155   |
| 380787   | 74HC4040T   | TSSOP-16 | 12-bit asynch binary counter                              | .35    | .298   | .224   |
| 272073   | 74HC4050N   | DIP-16   | Hex buffers non-inverting                                 | .41    | .332   | .249   |
| 380859   | 74HC4050T   | TSSOP-16 | Hex buffers non-inverting                                 | .39    | .332   | .249   |
| 88102    | 74HC4051N   | DIP-16   | 8-channel analog multiplexer                              | .33    | .285   | .214   |
| 380875   | 74HC4051T   | TSSOP-16 | 8-channel analog multiplexer                              | .39    | .332   | .249   |
| 272090   | 74HC4052N   | DIP-16   | Dual 4-channel analog multiplexer                         | .44    | .329   | .246   |
| 272129   | 74HC4053N   | DIP-16   | Triple 2-channel analog multiplexer                       | .40    | .315   | .236   |
| 380912   | 74HC4053T   | TSSOP-16 | Triple 2-channel analog multiplexer                       | .39    | .332   | .249   |
| 380939   | 74HC4060T   | TSSOP-16 | 14-stage asynch binary counter/oscillator                 | .39    | .332   | .249   |
| 45971    | 74HC4066N   | DIP-14   | Quad bilateral analog switch                              | .31    | .268   | .201   |
| 380955   | 74HC4066T   | TSSOP-14 | Quad bilateral analog switch                              | .39    | .332   | .249   |
| 380971   | 74HC4316T   | TSSOP-16 | High speed quad analog switch w/ level translation        | .39    | .332   | .249   |



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**74HCT Series**

| Part No. | Cross Ref.  | Pkg.     | Description  | * Minimum order 10 pieces |             |             |
|----------|-------------|----------|--|---------------------------|-------------|-------------|
|          |             |          |  | 1                         | 10          | 100         |
| 44871    | 74HCT00N    | DIP-14   | Quad 2-input NAND gate                             | * .171                    | <u>.128</u> |             |
| 381157   | 74HCT00T    | TSSOP-14 | Quad 2-input NAND gate                             | * .125                    | <u>.094</u> |             |
| 44898    | 74HCT04N    | DIP-14   | Quad 2-input NOR gate                              | * .158                    | <u>.118</u> |             |
| 381173   | 74HCT04T    | TSSOP-14 | Quad 2-input NOR gate                              | * .125                    | <u>.094</u> |             |
| 44901    | 74HCT08N    | DIP-14   | Quad 2-input AND gate                              | .29                       | .223        | .167        |
| 381190   | 74HCT08T    | TSSOP-14 | Quad 2-input AND gate                              | * .125                    | <u>.094</u> |             |
| 618046   | 74HCT10     | DIP-14   | Triple 3-input NAND gate                           | .34                       | .279        | .218        |
| 618054   | 74HCT11N    | DIP-14   | Triple 3-input NAND gate                           | .44                       | .349        | .265        |
| 44935    | 74HCT14N    | DIP-14   | Hex Schmitt trigger inverter                       | .23                       | .20         | <u>.15</u>  |
| 381237   | 74HCT14T    | TSSOP-14 | Hex Schmitt trigger inverter                       | * .141                    | <u>.118</u> |             |
| 381333   | 74HCT32T    | TSSOP-14 | Quad 2-input OR gate                               | * .125                    | <u>.094</u> |             |
| 45137    | 74HCT74N    | DIP-14   | Dual D-type pos. edge trig F-F w/ clear & preset   | .26                       | .224        | <u>.168</u> |
| 44927    | 74HCT138N   | DIP-16   | 3-to-8 decoder/demultiplexer                       | .33                       | .282        | .212        |
| 381211   | 74HCT138T   | TSSOP-16 | 3-to-8 decoder/demultiplexer                       | .24                       | .204        | <u>.153</u> |
| 63773    | 74HCT139N   | DIP-16   | 2-to-4 decoder/demultiplexer                       | .30                       | .266        | .21         |
| 88057    | 74HCT154N   | DIP-24   | 4-to-16 decoder/demultiplexer                      | <del>\$1.05</del> .95     | .81         | .61         |
| 45022    | 74HCT244N   | DIP-20   | Octal buffer/line driver w/ 3-st. output           | .31                       | .28         | .25         |
| 381270   | 74HCT244T   | TSSOP-20 | Octal buffer/line driver w/ 3-st. output           | .25                       | .213        | <u>.16</u>  |
| 45031    | 74HCT245N   | DIP-20   | Octal bus trans. w/ 3-state output                 | .34                       | .29         | <u>.22</u>  |
| 381296   | 74HCT245T   | TSSOP-20 | Octal bus trans. w/ 3-state output                 | .25                       | .213        | <u>.16</u>  |
| 45049    | 74HCT273N   | DIP-20   | Octal D-type flip-flop w/ clear                    | .29                       | .257        | .193        |
| 381317   | 74HCT273T   | TSSOP-20 | Octal D-type flip-flop w/ clear                    | .25                       | .213        | <u>.16</u>  |
| 45065    | 74HCT373N   | DIP-20   | Octal transparent D-type latch w/ 3-st. output     | * .158                    | .12         |             |
| 381376   | 74HCT374T   | TSSOP-20 | Octal D-type F-F edge trig. w/ 3-st. output        | .25                       | .213        | <u>.16</u>  |
| 381421   | 74HCT541T   | TSSOP-20 | Octal buffer/line driver w/ 3-st. NOR gate enabled | .26                       | .221        | <u>.166</u> |
| 45090    | 74HCT573N   | DIP-20   | Octal transparent D-type latch w/ 3-st. output     | .35                       | .30         | .23         |
| 381448   | 74HCT573T   | TSSOP-20 | Octal transparent D-type latch w/ 3-st. output     | .26                       | .221        | <u>.168</u> |
| 250940   | SN74HCT574N | DIP-20   | Octal D-type F-F w/ 3-st. output flow thru (TI)    | .45                       | .383        | <u>.287</u> |
| 45129    | 74HCT688N   | DIP-20   | 8-bit magnitude comparator                         | .58                       | .43         | <u>.322</u> |

**74LS Series**

| Part No. | Cross Ref. | Pkg.   | Description                               | 1 10 100 |       |             |
|----------|------------|--------|---|----------|-------|-------------|
|          |            |        |   | 1        | 10    | 100         |
| 46252    | 74LS00N    | DIP-14 | Quad 2-input NAND gate                    | \$.41    | \$.27 | \$.24       |
| 283725   | SN74LS00N  | DIP-14 | Quad 2-input NAND gate (TI)               | .45      | .364  | .276        |
| 46287    | 74LS02N    | DIP-14 | Quad 2-input NOR gate                     | .41      | .25   | .21         |
| 283741   | SN74LS02N  | DIP-14 | Quad 2-input NOR gate (TI)                | .43      | .328  | .248        |
| 46308    | 74LS03N    | DIP-14 | Quad 2-input NAND gate (O.C.)             | .41      | .33   | <u>.25</u>  |
| 46316    | 74LS04N    | DIP-14 | Hex inverter                              | .41      | .26   | .23         |
| 283792   | SN74LS04N  | DIP-14 | Hex inverter (TI)                         | .45      | .364  | .276        |
| 46341    | 74LS05N    | DIP-14 | Hex inverter (O.C.)                       | .41      | .332  | .252        |
| 46359    | 74LS06N    | DIP-14 | Hex inverter buffer/driver (O.C.)         | .74      | .62   | .50         |
| 46367    | 74LS07N    | DIP-14 | Hex buffer/driver (O.C. hi-voltage)       | .55      | .469  | .351        |
| 46375    | 74LS08N    | DIP-14 | Quad 2-input AND gate                     | .37      | .307  | .23         |
| 295401   | SN74LS08N  | DIP-14 | Quad 2-input AND gate (TI)                | .45      | .364  | .276        |
| 46391    | 74LS09N    | DIP-14 | Quad 2-input AND gate (O.C.)              | .52      | .365  | .277        |
| 46404    | 74LS10N    | DIP-14 | Triple 3-input NAND gate                  | .38      | .25   | .23         |
| 295427   | SN74LS10N  | DIP-14 | Triple 3-input NAND gate (TI)             | .45      | .383  | <u>.287</u> |
| 46439    | 74LS11N    | DIP-14 | Triple 3-input AND gate                   | .35      | .26   | .22         |
| 46640    | 74LS14N    | DIP-14 | Hex inverter Schmitt trigger              | .37      | .299  | .227        |
| 295460   | SN74LS14N  | DIP-14 | Hex inverter Schmitt trigger (TI)         | .39      | .332  | <u>.249</u> |
| 47095    | 74LS20N    | DIP-14 | Dual 4-input NAND gate                    | .28      | .191  | .185        |
| 47108    | 74LS21N    | DIP-14 | Dual 4-input AND gate                     | .26      | .224  | <u>.168</u> |
| 47378    | 74LS27N    | DIP-14 | Triple 3-input NOR gate                   | .25      | .21   | .158        |
| 47458    | 74LS30N    | DIP-14 | 8-input NAND gate                         | .25      | .221  | .166        |
| 47466    | 74LS32N    | DIP-14 | Quad 2-input OR gate                      | .29      | .26   | .23         |
| 295515   | SN74LS32N  | DIP-14 | Quad 2-input OR gate (TI)                 | .31      | .264  | <u>.198</u> |
| 295558   | SN74LS37N  | DIP-14 | Quad 2-input NAND gate buffer (TI)        | .59      | .502  | <u>.377</u> |
| 295566   | SN74LS38N  | DIP-14 | Quad 2-input NAND gate buffer (O.C.) TI   | .36      | .306  | <u>.23</u>  |
| 47773    | 74LS42N    | DIP-14 | BCD-to-decimal decoder/driver             | .84      | .71   | .536        |
| 47790    | 74LS47N    | DIP-16 | BCD-to-7 segment decoder/driver (O.C.)    | .72      | .52   | .45         |
| 295582   | SN74LS47N  | DIP-16 | BCD-to-7 segment decoder/driver (O.C.) TI | .77      | .58   | .539        |
| 47811    | 74LS48N    | DIP-16 | BCD-to-7 segment decoder/driver           | 4.99     | 4.24  | 3.18        |

\* 10 pcs. in 74LS series IC cabinet kit, pg 18 \*\* 20 pcs. in 74LS series IC cabinet kit, pg 18

**74LS Series (Continued)**

| Part No. | Cross Ref. | Pkg.   | Description                                | 1 10 100 |       |             |
|----------|------------|--------|--|----------|-------|-------------|
|          |            |        |  | 1        | 10    | 100         |
| 47992    | 74LS73N    | DIP-14 | Dual JK flip-flop w/ clear, center VCG/GND | \$1.03   | \$.84 | \$.64       |
| 48004    | 74LS74N    | DIP-14 | Dual D flip-flop                           | .36      | .25   | .22         |
| 295726   | SN74LS74AN | DIP-14 | Dual D flip-flop (TI)                      | .45      | .364  | .276        |
| 48021    | 74LS75N    | DIP-16 | 4-bit bi-stable latch                      | .86      | .73   | .66         |
| 48039    | 74LS76N    | DIP-16 | Dual JK flip-flop with preset & clear      | .83      | .68   | .61         |
| 48063    | 74LS83N    | DIP-16 | 4-bit binary full adder                    | 1.49     | 1.35  | 1.19        |
| 48071    | 74LS85N    | DIP-16 | 4-bit magnitude comparator                 | .42      | .382  | .345        |
| 295742   | SN74LS85N  | DIP-16 | 4-bit magnitude comparator (TI)            | .46      | .419  | .363        |
| 48098    | 74LS86N    | DIP-14 | Quad EXCLUSIVE-OR gate                     | .35      | .30   | .22         |
| 295751   | SN74LS86N  | DIP-14 | Quad EXCLUSIVE-OR gate (TI)                | .38      | .324  | .238        |
| 48119    | 74LS90N    | DIP-14 | Decade counter                             | .83      | .72   | .62         |
| 295769   | SN74LS90N  | DIP-14 | Decade counter (TI)                        | 1.45     | 1.19  | 1.09        |
| 48143    | 74LS92N    | DIP-14 | Divide-by-12 counter                       | .99      | .88   | .80         |
| 48151    | 74LS93N    | DIP-14 | 4-bit binary counter                       | .89      | .79   | .70         |
| 295822   | SN74LS93N  | DIP-14 | 4-bit binary counter (TI)                  | .95      | .85   | .76         |
| 48178    | 74LS95N    | DIP-14 | 4-bit parallel-access shift register       | 1.05     | .91   | .79         |
| 46412    | 74LS107N   | DIP-14 | Dual JK flip-flop with clear               | .72      | .51   | .36         |
| 46421    | 74LS109N   | DIP-16 | Dual JK pos. edge-trig. flip-flop          | .73      | .56   | <u>.42</u>  |
| 46447    | 74LS112N   | DIP-16 | Dual JK neg. edge-trig. flip-flop          | .39      | .299  | .227        |
| 46471    | 74LS122N   | DIP-14 | Retrig. mono. multivibrator comm. CLK      | .46      | .35   | .27         |
| 46480    | 74LS123N   | DIP-16 | Dual mono. multivibrator with clear        | .37      | .319  | .239        |
| 300880   | SN74LS123N | DIP-16 | Dual mono. multivibrator w/ clear (TI)     | .41      | .349  | <u>.262</u> |
| 46501    | 74LS125N   | DIP-14 | Quad bus buffer neg. enable tri-state      | .33      | .282  | .212        |
| 46527    | 74LS126N   | DIP-14 | Quad bus buffer tri-state                  | .37      | .345  | <u>.259</u> |
| 46551    | 74LS132N   | DIP-14 | Quad 2-input NAND Schmitt trigger          | .40      | .333  | .249        |
| 46586    | 74LS136N   | DIP-14 | Quad EXCLUSIVE-OR gate (O.C.)              | .53      | .40   | <u>.30</u>  |
| 46607    | 74LS138N   | DIP-16 | 3-to-8 decoder/demultiplexer               | .50      | .368  | .276        |
| 301233   | SN74LS138N | DIP-16 | 3-to-8 decoder/demultiplexer (TI)          | .54      | .459  | <u>.344</u> |
| 46623    | 74LS139N   | DIP-16 | 2-to-4 decoder/demultiplexer               | .37      | .291  | .239        |
| 46666    | 74LS145N   | DIP-16 | BCD-to-decimal decoder/driver (O.C.)       | .73      | .55   | .423        |
| 46682    | 74LS148N   | DIP-16 | 8-to-3 priority encoder                    | .51      | .432  | <u>.324</u> |
| 46703    | 74LS151N   | DIP-16 | 8-input multiplexer                        | .45      | .349  | .269        |
| 46720    | 74LS153N   | DIP-16 | Dual 4-to-1 selector/multiplexer           | .41      | .35   | .26         |
| 46738    | 74LS154N   | DIP-24 | 4-to-16 line decoder/demultiplexer         | 5.15     | 4.59  | 3.69        |
| 46754    | 74LS155N   | DIP-16 | Dual 2/4 demultiplexer                     | .85      | .72   | .54         |
| 301591   | SN74LS156N | DIP-16 | Dual 2/4 demultiplexer (O.C.) TI           | .39      | .332  | <u>.249</u> |
| 46771    | 74LS157N   | DIP-16 | Quad 2/1 data selector                     | .45      | .40   | <u>.30</u>  |
| 46800    | 74LS160N   | DIP-16 | Decade counter with async. clear           | 2.49     | 2.39  | 2.29        |
| 46818    | 74LS161N   | DIP-16 | Synch 4-bit counter                        | .46      | .349  | <u>.262</u> |
| 46842    | 74LS163N   | DIP-16 | Fully synch. 4-bit counter                 | .46      | .349  | <u>.265</u> |
| 46851    | 74LS164N   | DIP-14 | 8-bit serial shift register                | .43      | .36   | <u>.262</u> |
| 46877    | 74LS165N   | DIP-16 | 8-bit serial shift register, parallel load | .34      | .343  | .258        |
| 46885    | 74LS166N   | DIP-16 | 8-bit shift register, parallel load        | .71      | .54   | <u>.41</u>  |
| 46906    | 74LS169N   | DIP-16 | Synch. binary up/down counter              | .61      | .47   | <u>.35</u>  |
| 46922    | 74LS173N   | DIP-16 | 4-bit D-type reg. tri-state                | .94      | .80   | <u>.60</u>  |
| 46931    | 74LS174N   | DIP-16 | Hex D flip-flop with clear                 | .46      | .299  | <u>.224</u> |
| 46957    | 74LS175N   | DIP-16 | Quad D flip-flop with clear                | .273     | .322  | <u>.242</u> |
| 46973    | 74LS181N   | DIP-24 | Arithmetic logic unit/function gen.        | 2.15     | 1.80  | 1.22        |
| 46990    | 74LS190N   | DIP-16 | Synchronous up/down counter                | 2.95     | 2.65  | 2.55        |
| 47001    | 74LS191N   | DIP-16 | Up/down binary counter                     | .53      | .44   | .42         |
| 47010    | 74LS192N   | DIP-16 | Decade up/down counter w/ clear            | 3.95     | 3.59  | 3.25        |
| 47036    | 74LS193N   | DIP-16 | Binary up/down counter w/ clear            | .59      | .49   | .45         |
| 301831   | SN74LS193N | DIP-16 | Binary up/down counter w/ clear (TI)       | .64      | .544  | <u>.408</u> |
| 47052    | 74LS194N   | DIP-16 | 4-bit bi-directional shift register        | .74      | .63   | .50         |
| 301858   | SN74LS194N | DIP-16 | 4-bit bi-directional shift register (TI)   | .81      | .69   | <u>.517</u> |
| 47061    | 74LS195N   | DIP-16 | 4-bit parallel-access shift register       | 1.09     | .92   | <u>.69</u>  |
| 47124    | 74LS221N   | DIP-16 | Dual monostable multivibrator              | .33      | .267  | .25         |
| 47141    | 74LS240N   | DIP-20 | Octal invert. line driver tri-state        | .42      | .34   | <u>.255</u> |
| 47167    | 74LS241N   | DIP-20 | Octal bus/line driver tri-state            | .36      | .299  | <u>.23</u>  |
| 47183    | 74LS244N   | DIP-20 | Octal driver tri-state                     | .44      | .37   | .28         |
| 308312   | SN74LS244N | DIP-20 | Octal driver tri-state (TI)                | .48      | .40   | .331        |
| 47212    | 74LS245N   | DIP-20 | Octal bus transceiver tri-state            | .53      | .40   | .35         |
| 308321   | SN74LS245N | DIP-20 | Octal bus transceiver tri-state (TI)       | .58      | .493  | <u>.37</u>  |

\* 10 pcs. in 74LS series IC cabinet kit, pg 18 \*\* 20 pcs. in 74LS series IC cabinet kit, pg 18

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)



# 74LS, 74ALS, 74ABT & 4000 Series Standard Logic

| Color Code Legend |      |         |         |
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## 74LS Series (Continued)

| Part No.     | Cross Ref. | Pkg.   | Description                                     | 1             | 10            | 100           |
|--------------|------------|--------|---|---------------|---------------|---------------|
| 47247        | 74LS247N   | DIP-16 | BCD to 7-segment decoder/driver (O.C.)          | <b>\$ .94</b> | <b>\$ .80</b> | <b>\$ .60</b> |
| 47271        | 74LS251N   | DIP-16 | 8-channel multiplexer tri-state                 | .53           | .398          | <b>.299</b>   |
| 47298        | 74LS257N   | DIP-16 | Quad 2-input multiplexer                        | .69           | .59           | .443          |
| 47327        | 74LS259N   | DIP-16 | 8-bit addressable latch                         | .39           | .353          | .265          |
| 47360        | 74LS266N   | DIP-14 | Quad EXCLUSIVE-NOR gate (O.C.)                  | .65           | .498          | .378          |
| 47386        | 74LS273N   | DIP-20 | Octal D-type flip-flop with clear               | .49           | .392          | .303          |
| 308398       | SN74LS273N | DIP-20 | Octal D-type flip-flop with clear (TI)          | .58           | .493          | <b>.37</b>    |
| 47407        | 74LS279N   | DIP-16 | Quad set-rest latches                           | .50           | .425          | .319          |
| 47423        | 74LS283N   | DIP-16 | 4-bit binary full add with fast carry           | .53           | .453          | <b>.339</b>   |
| 47440        | 74LS299N   | DIP-20 | 8-bit universal shift/storage register          | .93           | .79           | <b>.59</b>    |
| 47546        | 74LS365N   | DIP-16 | Hex buffer with logical OR tri-state            | .78           | .66           | <b>.495</b>   |
| 47562        | 74LS367N   | DIP-16 | Hex buffer tri-state                            | .42           | .38           | .263          |
| 47600        | 74LS373N   | DIP-20 | Octal D flip-flop tri-state                     | .45           | .39           | .35           |
| 308460       | SN74LS373N | DIP-20 | Octal D flip-flop tri-state (TI)                | .49           | .421          | .378          |
| 47634        | 74LS374N   | DIP-20 | Octal D flip-flop edge-trig. tri-state          | .45           | .39           | .34           |
| 308478       | SN74LS374N | DIP-20 | Octal D flip-flop edge-trig. tri-state (TI)     | .49           | .417          | <b>.313</b>   |
| 47669        | 74LS377N   | DIP-20 | Octal D register common enable                  | .37           | .24           | .18           |
| 47722        | 74LS390N   | DIP-16 | Dual 4-bit decade counter                       | .69           | .59           | .44           |
| 47731        | 74LS393N   | DIP-14 | Dual 4-bit binary counter                       | .54           | .46           | <b>.34</b>    |
| 308515       | SN74LS540N | DIP-20 | Octal invert. buffer/line driver tri-state (TI) | .89           | .77           | .57           |
| 47861        | 74LS540N   | DIP-20 | Octal invert. buffer/line driver tri-state      | .82           | .71           | .524          |
| <b>47870</b> | 74LS541N   | DIP-20 | Octal buffer/line driver tri-state              | .67           | .57           | .46           |
| 64418        | 74LS573N   | DIP-20 | Octal D-type flip-flop latch tri-state          | 2.05          | 1.85          | 1.55          |
| 64426        | 74LS574N   | DIP-20 | Octal D-type flip-flop edge-trig. tri-state     | 2.15          | 1.89          | 1.69          |
| 47909        | 74LS590N   | DIP-16 | 8-bit binary counter w/o reg. tri-state         | <b>4.55</b>   | <b>4.06</b>   | <b>3.01</b>   |
| 103974       | 74LS595N   | DIP-16 | 8-bit serial-to-parallel shift reg. tri-state   | <b>5.25</b>   | <b>4.46</b>   | <b>3.35</b>   |
| 47950        | 74LS645N   | DIP-20 | Octal bus transceiver tri-state (O.C.)          | <b>\$1.59</b> | .92           | <b>.69</b>    |
| 309260       | 74LS682N   | DIP-20 | 8-bit magnitude comparator                      | 1.05          | .89           | <b>.67</b>    |
| 47984        | 74LS688N   | DIP-20 | 8-bit magnitude comparator                      | 1.39          | 1.16          | .89           |

\*10 pcs. in 74LS series IC cabinet kit, below

## 74LS Series IC Kit

Includes:  
20-drawer component cabinet (319600), 20 clear plastic drawers (319601), 20 clear dividers (319611), pg 209 and 30 adhesive labels for drawers to identify parts in kit

10 each: 74LS05, 74LS10, 74LS11, 74LS14, 74LS20, 74LS30, 74LS47, 74LS73, 74LS75, 74LS85, 74LS86, 74LS90, 74LS93, 74LS123, 74LS125, 74LS139, 74LS151, 74LS155, 74LS157, 74LS174, 74LS175, 74LS193, 74LS240, 74LS244, 74LS245, 74LS273, 74LS373, 74LS374

| Part No. | Description                 | Wt. (lbs.) | 1               | 10              |
|----------|-----------------------------|------------|-----------------|-----------------|
| 84961    | 420 pcs. 74LS IC kit        | 6.7        | <b>\$119.95</b> | <b>\$107.95</b> |
| 130391   | Refill for 84961 (420 pcs.) | 2.0        | <b>99.99</b>    | <b>91.83</b>    |

## 74ALS Series

| Part No.      | Cross Ref. | Pkg.    | Description                              | 1             | 10             | 100            |
|---------------|------------|---------|--|---------------|----------------|----------------|
| 309905        | 74ALS02AM  | SOIC-14 | Quad 2-input NOR gates                   | <b>\$ .29</b> | <b>\$ .243</b> | <b>\$ .182</b> |
| 245286        | 74ALS05AN  | DIP-14  | Hex inverters w/ open collector outputs  | .32           | .272           | <b>.204</b>    |
| 245323        | 74ALS11AN  | DIP-14  | Triple 3-input AND gates                 | .44           | .374           | <b>.28</b>     |
| 309614        | 74ALS138N  | DIP-16  | 3 to 8 line decoder/demultiplexer        | .46           | .391           | <b>.293</b>    |
| 310295        | 74ALS244AM | SOIC-20 | Octal 3-state bus drivers                | .39           | .33            | <b>.249</b>    |
| <b>245809</b> | 74ALS374AN | DIP-20  | Octal 3-st. D-type edge-trig. flip-flops | .29           | .25            | <b>.188</b>    |

Ⓢ Blue Part No. = Limited Quantity Available



## TTL Logic Data Book

Contains specifications and technical information on a broad line of TTL integrated circuits including Schottky TTL circuits. (1240 pages, 1988)

• Size: 6.0" x 8.5" • Weight: 2.6 lbs.

| Part No. | Description         | 1              | 10             |
|----------|---------------------|----------------|----------------|
| 88225    | TTL Logic Data Book | <b>\$34.95</b> | <b>\$31.49</b> |

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♻ RoHS compliant product Ⓢ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)



## 74ABT Series

For more TI 74ABT visit [www.Jameco.com](http://www.Jameco.com)

| Part No.      | Cross Ref.     | Pkg.     | Description                              | 1               | 5             | 50   |
|---------------|----------------|----------|--|-----------------|---------------|------|
| <b>830223</b> | SN74ABT125DG4  | SOIC-14  | Quad bus buffer gates w/ 3-state         | * <b>\$ .24</b> | <b>\$ .22</b> |      |
| <b>830240</b> | SN74ABT125PWG4 | TSSOP-14 | Quad bus buffer gates w/ 3-state         | .68             | .60           | .517 |
| <b>911461</b> | SN74ABT126D    | SOIC-14  | Quad bus buffer gates w/ 3-state         | * .34           | .304          |      |
| <b>830266</b> | SN74ABT126N    | DIP-14   | Quad bus buffer gates w/ 3-state         | .61             | .466          | .353 |
| <b>830282</b> | SN74ABT126PW   | TSSOP-14 | Quad bus buffer gates w/ 3-state         | .68             | .60           | .517 |
| <b>911496</b> | SN74ABT1625D   | SOIC-48  | 16-bit bus transceiver w/ 3-state        | 1.16            | .98           | .78  |
| <b>830303</b> | SN74ABT16240D  | SSOP-48  | 16-bit bus driver/buffer w/ 3-state      | 1.16            | .98           | .78  |
| <b>911568</b> | SN74ABT16245D  | SSOP-48  | 16-bit bus transceivers w/ 3-state       | 1.16            | .98           | .78  |
| <b>830320</b> | SN74ABT16543D  | SSOP-56  | 16-bit registered trans. w/ 3-state      | 1.46            | 1.18          | 1.04 |
| <b>830338</b> | SN74ABT16601D  | SSOP-56  | 18-bit universal bus trans. w/ 3-state   | 5.29            | 4.99          | 4.68 |
| <b>830346</b> | SN74ABT16623D  | SSOP-48  | 16-bit bus transceivers w/ 3-state       | 4.29            | 3.44          | 3.36 |
| <b>830362</b> | SN74ABT16640D  | SSOP-48  | 16-bit bus transceivers w/ 3-state       | 5.49            | 5.16          | 4.83 |
| <b>830389</b> | SN74ABT16821D  | SSOP-56  | 20-bit bus interface F-F w/ 3-state      | 3.29            | 2.65          | 2.59 |
| <b>830400</b> | SN74ABT16823D  | SSOP-56  | 18-bit bus interface F-F w/ 3-state      | 2.29            | 1.85          | 1.44 |
| <b>830426</b> | SN74ABT16952D  | SSOP-56  | 16-bit registered trans. w/ 3-state      | 3.15            | 2.58          | 2.09 |
| <b>911648</b> | SN74ABT2245D   | SOIC-20  | Octal trans./line/MOS drivers w/ 3-state | .85             | .64           | .485 |
| <b>830442</b> | SN74ABT241AD   | SOIC-20  | Octal bus driver/buffer w/ 3-state       | .85             | .64           | .485 |
| <b>911710</b> | SN74ABT244AP   | TSSOP-20 | Octal buffer/driver w/ 3-state           | * .417          | .382          |      |
| <b>830469</b> | SN74ABT245BP   | TSSOP-20 | Octal bus transceiver                    | * .378          | .343          |      |
| <b>830514</b> | SN74ABT273DWE4 | SOIC-20  | Octal edge trig. D-type F-F w/ clear     | .77             | .68           | .59  |
| <b>830531</b> | SN74ABT273N    | DIP-20   | Octal edge trig. D-type F-F w/ clear     | .77             | .58           | .441 |
| <b>830557</b> | SN74ABT374AD   | SOIC-20  | Octal edge trig. D-type F-F w/ clear     | .77             | .58           | .441 |
| <b>830573</b> | SN74ABT454AP   | TSSOP-20 | Octal edge trig. D-type F-F with clear   | .77             | .68           | .59  |
| <b>830590</b> | SN74ABT620D    | SOIC-20  | Octal bus transceiver w/ 3-state         | 1.31            | 1.10          | .88  |
| <b>830611</b> | SN74ABT623D    | SOIC-20  | Octal bus transceiver w/ 3-state         | 1.31            | 1.10          | .88  |
| <b>830637</b> | SN74ABT640D    | SOIC-20  | Octal bus transceiver w/ 3-state         | 1.31            | 1.10          | .88  |
| <b>830653</b> | SN74ABT640N    | DIP-20   | Octal bus transceiver w/ 3-state         | 1.31            | 1.10          | .88  |
| <b>830670</b> | SN74ABT652ANT  | DIP-24   | Octal registered trans. w/ 3-state       | 1.49            | 1.22          | .91  |
| <b>830696</b> | SN74ABT823D    | SOIC-24  | 9-bit bus interface F-F w/ 3-state       | 1.41            | 1.14          | 1.00 |
| <b>830717</b> | SN74ABT843NTE4 | DIP-24   | 9-bit bus interface F-F w/ 3-state       | 2.15            | 1.88          | 1.62 |
| <b>911787</b> | SN74ABT16245D  | SSOP-48  | 16-bit switching bus trans. w/ 3-state   | 7.85            | 7.42          | 6.98 |
| <b>830741</b> | SN74ABT16244D  | SSOP-48  | 16-bit buffer/driver w/ 3-state          | 1.16            | .97           | .78  |

## 4000 Series

| Part No. | Cross Ref. | Pkg.    | Description                                   | 1             | 10             | 100            |
|----------|------------|---------|---|---------------|----------------|----------------|
| 12562    | CD4001N    | DIP-14  | Quad 2-input NOR gates                        | <b>\$ .32</b> | <b>\$ .264</b> | <b>\$ .209</b> |
| 675964   | CD4002N    | DIP-14  | Dual 4-input NOR gates                        | .41           | .336           | .179           |
| 12597    | CD4007N    | DIP-14  | Dual comp. pair with inverter                 | .29           | .25            | .22            |
| 12634    | CD4011N    | DIP-14  | Quad 2-input NAND gates                       | .29           | .24            | .19            |
| 675972   | CD4012N    | DIP-14  | Dual 4-input NAND gates                       | .34           | .295           | .179           |
| 12677    | CD4013N    | DIP-14  | Dual D flip-flops with set/reset              | .35           | .25            | .22            |
| 197288   | CD4013M    | SOIC-14 | Dual D flip-flops with set/reset              | .28           | .209           | <b>.133</b>    |
| 675981   | CD4014N    | DIP-16  | 8-stage static shift register                 | .28           | .265           | .17            |
| 12706    | CD4015N    | DIP-16  | Dual 4-stage static shift registers           | .31           | .249           | .207           |
| 13565    | CD4518N    | DIP-16  | Dual BCD up counters                          | .26           | .25            | .23            |
| 13581    | CD4520N    | DIP-16  | Dual binary up counters                       | .33           | .25            | .20            |
| 13602    | CD4526N    | DIP-16  | Divide-by-N counter (binary)                  | .52           | .46            | .395           |
| 676422   | CD4527N    | DIP-16  | BCD rate multiplier                           | .40           | .333           | .226           |
| 13611    | CD4528N    | DIP-16  | Dual monostable multivibrators                | 1.08          | .92            | .69            |
| 676431   | CD4532N    | DIP-16  | 8-bit priority encoder                        | .39           | .299           | .169           |
| 676449   | CD4536N    | DIP-16  | CMOS Programmable timer                       | .59           | .448           | .254           |
| 13653    | CD4538N    | DIP-16  | Dual precision monostable multivibrators      | .44           | .37            | .302           |
| 13688    | CD4541N    | DIP-14  | Oscillator/programmable timer                 | .30           | .298           | .241           |
| 676844   | CD4541M    | SOIC-14 | Oscillator/programmable timer                 | .23           | .183           | .145           |
| 13696    | CD4543N    | DIP-16  | BCD to 7-segment decoder (LCD)                | .34           | .273           | .204           |
| 13709    | CD4553N    | DIP-16  | 3-digit BCD counter                           | 2.95          | 2.66           | 2.39           |
| 354600   | CD4555N    | DIP-16  | Dual 1-4 decoder/demultiplexers (H.O.)        | .46           | .391           | <b>.293</b>    |
| 354618   | CD4556N    | DIP-16  | Dual 1-4 decoder/demultiplexers (L.O.)        | .46           | .349           | <b>.26</b>     |
| 13768    | CD4584N    | DIP-14  | Hex Schmitt triggers                          | .39           | .35            | .29            |
| 676457   | CD4724N    | DIP-16  | CMOS 8-bit addressable latch                  | .32           | .298           | .196           |
| 676465   | CD14538N   | DIP-16  | CMOS dual precision monostable multivib.      | .66           | .498           | .279           |
| 676473   | CD40102N   | DIP-16  | 8-st. preset. synch. down cnts (2-decade BCD) | .79           | .66            | .408           |
| 676481   | CD40103N   | DIP-16  | 8-st. preset. synch. down cnts (8-bit binary) | .47           | .423           | .33            |
| 44257    | CD40106N   | DIP-14  | Hex inverters Schmitt trigger (74C14)         | .49           | .465           | .42            |

\*10 pcs. in 4000 series IC cabinet kit, pg 19 \*\*20 pcs. in 4000 series IC cabinet kit, pg 19

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## 4000 Series (Continued)

| Part No. | Cross Ref. | Pkg.    | Description   | 1    | 10     | 100    |
|----------|------------|---------|---|------|--------|--------|
| 676887   | CD40106M   | SOIC-14 | CMOS Hex Schmitt trigger                            | .27  | \$.253 | \$.213 |
| 676490   | CD40107N   | DIP-8   | Dual 2-input NAND buffer/driver                     | .44  | .349   | .198   |
| 354589   | CD40109N   | DIP-16  | Quad L to H volt. level shifters                    | .51  | .434   | .326   |
| 676502   | CD40110N   | DIP-16  | Decade up-down counter                              | 1.23 | 1.00   | .71    |
| 676511   | CD40174N   | DIP-16  | HEX D-type flip flops                               | .43  | .324   | .183   |
| 676529   | CD40192N   | DIP-16  | Presetttable up/down counter                        | .46  | .349   | .196   |
| 676537   | CD40193N   | DIP-16  | Presetttable up/down counter                        | .59  | .448   | .255   |
| 12722    | CD4016N    | DIP-14  | Quad bilateral switches                             | .28  | .24    | .18    |
| 676545   | CD4016M    | SOIC-14 | Quad bilateral switches                             | .36  | .293   | .152   |
| 12749    | CD4017N    | DIP-16  | Decade counter/divider                              | .39  | .35    | .32    |
| 197296   | CD4017M    | SOIC-16 | Decade counter/divider                              | .36  | .31    | .233   |
| 12773    | CD4018N    | DIP-16  | Presetttable divide-by-N counter                    | .27  | .232   | .174   |
| 675999   | CD4019N    | DIP-16  | Quad AND/OR select gates                            | .32  | .274   | .17    |
| 12802    | CD4020N    | DIP-16  | 14-stage binary/ripple counter                      | .49  | .39    | .29    |
| 12829    | CD4021N    | DIP-16  | 8-stage static shift register                       | .29  | .25    | .188   |
| 54666    | CD4022N    | DIP-16  | Div. by 8-cntr./driver w/ 8-decoded outputs         | .32  | .30    | .27    |
| 12845    | CD4023N    | DIP-14  | Triple 3-input NAND gates                           | .33  | .249   | .223   |
| 12853    | CD4024N    | DIP-14  | 7-stage binary counter                              | .39  | .299   | .227   |
| 676748   | CD4024M    | SOIC-14 | 7-stage binary counter                              | .20  | .174   | .16    |
| 676001   | CD4025N    | DIP-14  | Triple 3-input NOR gates                            | .20  | .18    | .132   |
| 353560   | CD4026N    | DIP-16  | Decade counter/divider                              | .62  | .52    | .45    |
| 12888    | CD4027N    | DIP-16  | Dual JK master-slave flip-flops                     | .27  | .22    | .16    |
| 12909    | CD4028N    | DIP-16  | BCD-to-decimal decoder                              | .40  | .266   | .244   |
| 12925    | CD4029N    | DIP-16  | Presetttable up/down counter                        | .32  | .282   | .248   |
| 676019   | CD4030N    | DIP-14  | Quad exclusive OR gates                             | .21  | .169   | .128   |
| 12950    | CD4040N    | DIP-16  | 12-stage binary/ripple counter                      | .29  | .246   | .184   |
| 197333   | CD4040M    | SOIC-16 | 12-stage binary/ripple counter                      | .51  | .43    | .323   |
| 676027   | CD4041N    | DIP-14  | Quad true/complement driver                         | .79  | .60    | .335   |
| 12984    | CD4042N    | DIP-16  | Quad clocked D latches                              | .27  | .232   | .174   |
| 12992    | CD4043N    | DIP-16  | Quad NOR R-S latches tri-state                      | .30  | .249   | .186   |
| 13004    | CD4044N    | DIP-16  | Quad 3-state NAND R-S latches tri-state             | .36  | .32    | .26    |
| 13055    | CD4049N    | DIP-16  | Hex/buffer/converters (inverting)                   | .29  | .24    | .21    |
| 13071    | CD4050N    | DIP-16  | Hex/buffer/converters (non-inverting)               | .30  | .244   | .235   |
| 13098    | CD4051N    | DIP-16  | Single 8-channel multi./demultiplexer               | .45  | .39    | .35    |
| 13119    | CD4052N    | DIP-16  | Diff. 4-channel multi./demultiplexer                | .31  | .26    | .195   |
| 676756   | CD4052M    | SOIC-16 | 4-ch analog multi./demultiplexer                    | .47  | .379   | .201   |
| 13127    | CD4053N    | DIP-16  | Triple 2-channel multi./demultiplexers              | .24  | .20    | .183   |
| 676801   | CD4053M    | SOIC-16 | Triple 2-ch analog multi./demultiplexer             | .37  | .284   | .162   |
| 676035   | CD4054N    | DIP-16  | 4-segment LCD driver                                | .33  | .266   | .183   |
| 676043   | CD4059N    | DIP-24  | CMOS prog. divide-by-N counter                      | 2.05 | 1.66   | 1.24   |
| 13151    | CD4060N    | DIP-16  | 14-stage ripple-carry binary                        | .41  | .33    | .25    |
| 676810   | CD4060M    | SOIC-16 | 14-stg. ripple-carry binary cntr/divider/oscillator | .42  | .339   | .18    |
| 676051   | CD4063N    | DIP-16  | 4-bit magnitude counter                             | .59  | .448   | .251   |
| 13186    | CD4066N    | DIP-14  | Quad bilateral switches                             | .35  | .25    | .19    |
| 13215    | CD4067N    | DIP-24  | 16-channel analog multi./demultiplexer              | .85  | .72    | .54    |
| 676060   | CD4068N    | DIP-14  | 8-input NAND/AND gates                              | .25  | .183   | .121   |
| 13231    | CD4069N    | DIP-14  | Hex inverters (74C04)                               | .31  | .264   | .198   |
| 13258    | CD4070N    | DIP-14  | Quad exclusive-OR gates (74C86)                     | .32  | .276   | .196   |

\*10 pcs. in 4000 series IC cabinet kit, below

\*\*20 pcs. in 4000 series IC cabinet kit, below

## 4000 Series CMOS IC Kit

SAVE \$26

## Includes:

20-drawer component cabinet (319600), 20 clear plastic drawers (319601), 20 clear dividers (319611), pg 209 and 30 adhesive labels for drawers to identify parts in kit

10 each: CD4015, CD4016, CD4017, CD4020, CD4023, CD4024, CD4027, CD4040, CD4046, CD4050, CD4051, CD4069, CD4070, CD4071, CD4081, CD4093, CD4511, CD4538, CD4543, CD4584

20 each: CD4001, CD4011, CD4013, CD4049, CD4056

| Part No. | Description                      | Wt. (lbs.) | 1       | 10      |
|----------|----------------------------------|------------|---------|---------|
| 84970    | 300 pcs. 4000 series CMOS IC kit | 6.1        | \$79.95 | \$73.67 |
| 130403   | Refill for 84970                 | 1.4        | 69.19   | 65.88   |



84970



♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product

⊕ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

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## 4000 Series (Continued)

| Part No. | Cross Ref. | Pkg.    | Description                               | 1     | 10     | 100    |
|----------|------------|---------|---|-------|--------|--------|
| 13274    | CD4071N    | DIP-14  | Quad 2-input OR gates                     | \$.32 | \$.288 | \$.259 |
| 676078   | CD4072N    | DIP-14  | Dual 4-input OR gates                     | .35   | .286   | .128   |
| 676086   | CD4073N    | DIP-14  | Triple 3-input AND gates                  | .40   | .379   | .196   |
| 676406   | CD4073M    | SOIC-14 | Triple 3-input AND gates                  | .45   | .365   | .196   |
| 676094   | CD4075N    | DIP-14  | Triple 3-input OR gates                   | .45   | .333   | .196   |
| 676107   | CD4077N    | DIP-14  | Quad exclusive NOR gates                  | .39   | .281   | .133   |
| 676414   | CD4077M    | SOIC-14 | Quad exclusive NOR gates                  | .21   | .20    | .128   |
| 676115   | CD4078N    | DIP-14  | 8-input NOR/OR gates                      | .39   | .238   | .194   |
| 13354    | CD4081N    | DIP-14  | Quad 2-input AND gates                    | .28   | .26    | .24    |
| 676123   | CD4082N    | DIP-14  | Dual 4-input AND gates                    | .35   | .30    | .179   |
| 676131   | CD4085N    | DIP-14  | Dual 2-wide 2-input AND/OR inverter gates | .53   | .361   | .296   |
| 676140   | CD4089N    | DIP-16  | Binary rate multiplier                    | .80   | .68    | .504   |
| 13400    | CD4093N    | DIP-14  | Quad 2-input NANDs Schmitt trigger        | .29   | .25    | .19    |
| 13426    | CD4094N    | DIP-16  | 8-stage shift-and-store bus register      | .28   | .26    | .23    |
| 676158   | CD4502N    | DIP-16  | Strobed hex inverter/buffer               | *.16  | .13    |        |
| 676166   | CD4504N    | DIP-16  | Hex voltage-level shifter                 | .49   | .47    | .281   |
| 13485    | CD4510N    | DIP-16  | BCD up/down counter                       | .39   | .30    | .23    |
| 13493    | CD4511N    | DIP-16  | BCD to 7-seg. latch/decoder/driver        | .69   | .59    | .49    |
| 13514    | CD4512N    | DIP-16  | 8-channel data selector                   | .43   | .323   | .242   |
| 13522    | CD4514N    | DIP-24  | 4-bit latch/4-16 line decoder             | .94   | .79    | .64    |
| 13549    | CD4516N    | DIP-16  | Binary up/down counter                    | .50   | .40    | .30    |

\*10 pcs. in 4000 series IC cabinet kit, below


## ON Semiconductor® MC14000 Series

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| Part No. | Cross Ref.   | Pkg.    | Description                            | 1     | 5     | 50   |
|----------|--------------|---------|--|-------|-------|------|
| 867886   | MC14001BCP   | PDIP-14 | Quad 2-input NOR gate                  | *.244 | \$.22 |      |
| 867958   | MC14001BD    | SOIC-14 | Quad 2-input NOR gate                  | *.297 | .267  |      |
| 867991   | MC14001UBCP  | PDIP-14 | Quad 2-input NOR gate                  | *.281 | .234  |      |
| 791754   | MC14011BCPG  | PDIP-14 | Quad 2-input NAND gate                 | *.213 | .179  |      |
| 791771   | MC14011BDG   | SOIC-14 | Quad 2-input NAND gate                 | *.301 | .271  |      |
| 791826   | MC14011UBCPG | PDIP-14 | Quad 2-input NAND gate                 | *.277 | .249  |      |
| 791842   | MC14011UBD   | SOIC-14 | Quad 2-input NAND gate                 | *.158 | .146  |      |
| 791869   | MC14012BCPG  | PDIP-14 | Dual 4-input NAND gate                 | *.224 | .189  |      |
| 868141   | MC14013BCP   | PDIP-14 | Dual D-type flip-flop                  | *.292 | .265  |      |
| 868176   | MC14013BD    | SOIC-14 | Dual D-type flip-flop                  | *.355 | .269  |      |
| 791885   | MC14014BCP   | PDIP-16 | 8-bit static shift register            | *.34  | .304  |      |
| 868256   | MC14015BCP   | PDIP-16 | Dual 4-bit static shift register       | *.292 | .269  |      |
| 868272   | MC14016BCP   | PDIP-14 | Quad analog switch/multiplexer         | *.236 | .198  |      |
| 791893   | MC14016BD    | SOIC-14 | Quad analog switch/multiplexer         | *.291 | .265  |      |
| 791914   | MC14017BCPG  | PDIP-16 | Decade counter                         | *.299 | .252  |      |
| 868328   | MC14017BD    | SOIC-16 | Decade counter                         | *.396 | .355  |      |
| 868352   | MC14018BCP   | PDIP-16 | Presetttable divide-by-N counter       | *.435 | .355  |      |
| 868387   | MC14020BCP   | PDIP-16 | 14-bit binary counter                  | *.36  | .303  |      |
| 868416   | MC14020BD    | SOIC-16 | 14-bit binary counter                  | *.329 | .30   |      |
| 868441   | MC14021BCP   | PDIP-16 | 8-bit static shift register            | *.286 | .245  |      |
| 868467   | MC14023BCP   | PDIP-14 | Triple 3-input NAND gate               | *.224 | .189  |      |
| 791973   | MC14023BDG   | SOIC-14 | Triple 3-input NAND gate               | *.242 | .198  |      |
| 868491   | MC14024BCP   | PDIP-14 | 7-stage ripple counter                 | *.357 | .281  |      |
| 791990   | MC14024BD    | SOIC-14 | 7-stage ripple counter                 | *.38  | .288  |      |
| 792010   | MC14025BCPG  | PDIP-14 | Triple 3-input NOR gate                | *.224 | .189  |      |
| 868555   | MC14025BD    | SOIC-14 | Triple 3-input NOR gate                | *.233 | .21   |      |
| 868571   | MC14027BCP   | PDIP-16 | Dual J-K flip-flop                     | *.34  | .309  |      |
| 868601   | MC14027BD    | SOIC-16 | Dual J-K flip-flop                     | *.281 | .245  |      |
| 792036   | MC14028BCP   | PDIP-16 | BCD-to-Decimal/Binary-to-Octal decoder | *.258 | .218  |      |
| 792052   | MC14029BCPG  | PDIP-16 | Binary / Decade up/down counter        | .52   | .475  | .426 |
| 792095   | MC14040BCPG  | PDIP-16 | 12-bit binary counter                  | *.31  | .26   |      |
| 792108   | MC14042BCPG  | PDIP-16 | Quad transparent latch                 | *.343 | .289  |      |
| 868740   | MC14043BCP   | PDIP-16 | CMOS MSI quad R-S latches              | *.366 | .31   |      |
| 868774   | MC14043BD    | SOIC-16 | CMOS MSI quad R-S latches              | *.378 | .333  |      |
| 868791   | MC14044BCP   | PDIP-16 | CMOS MSI quad R-S latches              | *.337 | .283  |      |
| 792124   | MC14046BCPG  | PDIP-16 | Phase-locked loop                      | *.385 | .31   |      |
| 868854   | MC14046BDW   | SOIC-16 | Phase-locked loop                      | *.407 | .333  |      |



# MC14000 & 7400 Series

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| Part No. | Cross Ref.   | Pkg.    | Description                              | * Minimum order 5 pieces |     |     |
|----------|--------------|---------|--|--------------------------|-----|-----|
|          |              |         |  | 1                        | 5   | 50  |
| 686889   | MC14049BCP   | PDIP-16 | Hex inverter/buffer                      | ...                      | ... | ... |
| 792141   | MC14049BDG   | SOIC-16 | Hex inverter/buffer                      | ...                      | ... | ... |
| 686942   | MC14049UBCP  | PDIP-16 | Hex inverter/buffer                      | ...                      | ... | ... |
| 686977   | MC14049UBD   | SOIC-16 | Hex inverter/buffer                      | ...                      | ... | ... |
| 6869021  | MC14050BCP   | PDIP-16 | Non-inverting hex buffer                 | ...                      | ... | ... |
| 6869048  | MC14050BD    | SOIC-16 | Non-inverting hex buffer                 | ...                      | ... | ... |
| 6869072  | MC14051BCP   | PDIP-16 | 8-ch multiplexer/demultiplexers          | ...                      | ... | ... |
| 6869101  | MC14051BD    | SOIC-16 | 8-ch multiplexer/demultiplexers          | ...                      | ... | ... |
| 6869144  | MC14052BCP   | PDIP-16 | Dual 4-ch analog multi/demultiplexer     | ...                      | ... | ... |
| 6869187  | MC14052BD    | SOIC-16 | Dual 4-ch analog multi/demultiplexer     | ...                      | ... | ... |
| 6869216  | MC14053BCP   | PDIP-16 | Triple 2-ch analog multi/demultiplexer   | ...                      | ... | ... |
| 6869241  | MC14053BD    | SOIC-16 | Triple 2-ch analog multi/demultiplexer   | ...                      | ... | ... |
| 6869291  | MC14060BCP   | PDIP-16 | 14-bit binary counter & oscillator       | ...                      | ... | ... |
| 6869321  | MC14060BD    | SOIC-16 | 14-bit binary counter & oscillator       | ...                      | ... | ... |
| 6869355  | MC14066BCP   | PDIP-14 | Quad analog switch/Quad multiplexer      | ...                      | ... | ... |
| 792167   | MC14066BDG   | SOIC-14 | Quad analog switch/Quad multiplexer      | ...                      | ... | ... |
| 792183   | MC14067BCP   | PDIP-14 | 16-ch analog multiplexer/demultiplexer   | ...                      | ... | ... |
| 792204   | MC14067BDW   | SOIC-14 | 16-ch analog multiplexer/demultiplexer   | ...                      | ... | ... |
| 792221   | MC14069UBCP  | PDIP-14 | Hex inverter                             | ...                      | ... | ... |
| 6869494  | MC14069UBDG  | SOIC-14 | Hex inverter                             | ...                      | ... | ... |
| 6869523  | MC14069UBDR2 | SOIC-14 | Hex inverter                             | ...                      | ... | ... |
| 6869558  | MC14070BCP   | PDIP-14 | CMOS SSI quad exclusive OR gate          | ...                      | ... | ... |
| 792247   | MC14070BCP   | PDIP-14 | CMOS SSI quad exclusive OR gate          | ...                      | ... | ... |
| 6869620  | MC14070BD    | SOIC-14 | CMOS SSI quad exclusive OR gate          | ...                      | ... | ... |
| 6869654  | MC14071BCP   | PDIP-14 | Quad 2-input OR gate                     | ...                      | ... | ... |
| 792263   | MC14071BCP   | PDIP-14 | Quad 2-input OR gate                     | ...                      | ... | ... |
| 6869671  | MC14071BD    | SOIC-14 | Quad 2-input OR gate                     | ...                      | ... | ... |
| 6869697  | MC14073BCP   | PDIP-14 | Triple 3-input AND gate                  | ...                      | ... | ... |
| 792280   | MC14076BCP   | PDIP-16 | 4-bit D-type register w/ 3-st.           | ...                      | ... | ... |
| 6869726  | MC14077BCP   | PDIP-14 | CMOS SSI quad exclusive NOR gate         | ...                      | ... | ... |
| 6869751  | MC14077BD    | SOIC-14 | CMOS SSI quad exclusive NOR gate         | ...                      | ... | ... |
| 6869785  | MC14081BCP   | PDIP-14 | Quad 2-input AND gate                    | ...                      | ... | ... |
| 6869814  | MC14081BD    | SOIC-14 | Quad 2-input AND gate                    | ...                      | ... | ... |
| 6869849  | MC14082BCP   | PDIP-14 | Dual 4-input AND gate                    | ...                      | ... | ... |
| 792301   | MC14093BCP   | PDIP-14 | Quad 2-input NAND schmitt trigger        | ...                      | ... | ... |
| 6869881  | MC14093BD    | SOIC-14 | Quad 2-input NAND schmitt trigger        | ...                      | ... | ... |
| 6869929  | MC14094BCP   | PDIP-16 | 8-stage shift store register w/ 3-st.    | ...                      | ... | ... |
| 792327   | MC14094BD    | SOIC-16 | 8-stage shift store register w/ 3-st.    | ...                      | ... | ... |
| 792343   | MC14099BCP   | PDIP-16 | 8-bit addressable latches                | ...                      | ... | ... |
| 792360   | MC14106BCP   | PDIP-14 | Hex schmitt trigger                      | ...                      | ... | ... |
| 6869961  | MC14106BD    | SOIC-14 | Hex schmitt trigger                      | ...                      | ... | ... |
| 792423   | MC14174BCP   | PDIP-16 | Hex type D flip-flop                     | ...                      | ... | ... |
| 870137   | MC14175BCP   | PDIP-16 | Quad type D flip-flop                    | ...                      | ... | ... |
| 792440   | MC14489BPE   | DIP-20  | Multi-character LED display/lamp drv     | ...                      | ... | ... |
| 870153   | MC14490DW    | SOIC-16 | Hex contact bounce eliminator            | ...                      | ... | ... |
| 870170   | MC14503BCP   | PDIP-16 | Hex non-inverting 3-state outputs        | ...                      | ... | ... |
| 792466   | MC14503BD    | SOIC-16 | Hex non-inverting 3-state outputs        | ...                      | ... | ... |
| 870196   | MC14504BCP   | PDIP-16 | Hex level shifter                        | ...                      | ... | ... |
| 870233   | MC14504BD    | SOIC-16 | Hex level shifter                        | ...                      | ... | ... |
| 792474   | MC14511BCP   | PDIP-16 | BCD-to-7 seg latch/decoder/driver        | ...                      | ... | ... |
| 870276   | MC14511BD    | SOIC-16 | BCD-to-7 seg latch/decoder/driver        | ...                      | ... | ... |
| 870292   | MC14512BCP   | PDIP-16 | 8-ch data selector                       | ...                      | ... | ... |
| 792491   | MC14513BCP   | PDIP-18 | BCD-to-7 seg latch/decoder/driver        | ...                      | ... | ... |
| 792511   | MC14514BCP   | PDIP-24 | 4-bit transparent latch/4-to-16 line dec | ...                      | ... | ... |
| 870305   | MC14516BCP   | PDIP-16 | Binary up/down counter                   | ...                      | ... | ... |
| 792538   | MC14517BCP   | PDIP-16 | Dual 64-bit static shift register        | ...                      | ... | ... |
| 870321   | MC14518BCP   | PDIP-16 | Dual BCD up counter                      | ...                      | ... | ... |
| 870348   | MC14520BCP   | PDIP-16 | Dual binary up counter                   | ...                      | ... | ... |
| 870364   | MC14521BCP   | PDIP-16 | 24-stage frequency counter               | ...                      | ... | ... |
| 792554   | MC14521BDG   | SOIC-16 | 24-stage frequency counter               | ...                      | ... | ... |
| 870381   | MC14526BCP   | PDIP-16 | Presetable 4-bit down counter            | ...                      | ... | ... |
| 870401   | MC14528BCP   | PDIP-16 | Dual monostable multivibrator            | ...                      | ... | ... |
| 792571   | MC14528BD    | SOIC-16 | Dual monostable multivibrator            | ...                      | ... | ... |
| 870428   | MC14532BCP   | PDIP-16 | 8-bit priority encoder                   | ...                      | ... | ... |
| 870436   | MC14536BCP   | PDIP-16 | Programmable timer                       | ...                      | ... | ... |

\* with 24-stage binary ripple counter w/ 16-stages selectable by binary code

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

## ON Semiconductor® MC14000 (Cont.)


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| Part No. | Cross Ref.   | Pkg.    | Description                                 | * Minimum order 5 pieces |     |     |
|----------|--------------|---------|---|--------------------------|-----|-----|
|          |              |         |   | 1                        | 5   | 50  |
| 792597   | MC14536BDWG  | SOIC-16 | Programmable timer                          | ...                      | ... | ... |
| 870495   | MC14538BCP   | PDIP-16 | Dual prec retrig/reset mono multi           | ...                      | ... | ... |
| 870508   | MC14538BD    | SOIC-16 | Dual prec retrig/reset mono multi           | ...                      | ... | ... |
| 792618   | MC14538BDWG  | SOIC-16 | Dual prec retrig/reset mono multi           | ...                      | ... | ... |
| 870532   | MC14541BCP   | PDIP-14 | Programmable timer                          | ...                      | ... | ... |
| 870559   | MC14541BD    | SOIC-14 | Programmable timer                          | ...                      | ... | ... |
| 870591   | MC14543BCP   | PDIP-16 | BCD-to-7 seg latch/dec./driver for LCD      | ...                      | ... | ... |
| 792634   | MC14543BD    | SOIC-16 | BCD-to-7 seg latch/dec./driver for LCD      | ...                      | ... | ... |
| 792642   | MC14551BCP   | PDIP-16 | Quad 2-ch analog multi/demultiplexer        | ...                      | ... | ... |
| 870639   | MC14551BD    | PDIP-16 | 3-digit BCD counter                         | ...                      | ... | ... |
| 870655   | MC14555BCP   | PDIP-16 | Dual binary to 1-of-4 dec/demultiplexer     | ...                      | ... | ... |
| 870671   | MC14557BCP   | PDP-16  | 1-to-64 bit variable length shift register  | ...                      | ... | ... |
| 870698   | MC1455D      | SOIC-8  | Monolithic timing circuit                   | ...                      | ... | ... |
| 792677   | MC1455DGP    | SOIC-8  | Monolithic timing circuit                   | ...                      | ... | ... |
| 870719   | MC14569BCP   | PDIP-16 | Prog. divide-by-N dual 4-bit binary/BCD cnt | ...                      | ... | ... |
| 792693   | MC14569BDW   | SOIC-16 | Prog. divide-by-N dual 4-bit binary/BCD cnt | ...                      | ... | ... |
| 792714   | MC14572UBCP  | PDIP-16 | Hex gate                                    | ...                      | ... | ... |
| 792731   | MC14572UBCPG | PDIP-16 | Hex gate                                    | ...                      | ... | ... |
| 870735   | MC14584BCP   | PDIP-14 | Hex Schmitt trigger                         | ...                      | ... | ... |
| 792757   | MC14584BCP   | PDIP-14 | Hex Schmitt trigger                         | ...                      | ... | ... |
| 870751   | MC14584BD    | SOIC-14 | Hex Schmitt trigger                         | ...                      | ... | ... |
| 870778   | MC14584BDG   | SOIC-14 | Hex Schmitt trigger                         | ...                      | ... | ... |
| 870794   | MC14584BDR2  | SOIC-14 | Hex Schmitt trigger                         | ...                      | ... | ... |
| 870815   | MC14585BCP   | PDIP-16 | 4-bit magnitude comparator                  | ...                      | ... | ... |
| 792773   | MC14585BCP   | PDIP-16 | 4-bit magnitude comparator                  | ...                      | ... | ... |

\* with 24-stage binary ripple counter w/ 16-stages selectable by binary code  
 \*\* consists of 15-stage binary counter, integrated oscillator for use w/ external capacitor & 2 resistors, automatic power-on reset circuit, & output control logic

## 7400 Series

| Part No. | Cross Ref. | Pkg.   | Description                             | 1   | 10  | 100 |
|----------|------------|--------|---|-----|-----|-----|
| 48979    | 7400N      | DIP-14 | Quad 2-input NAND gates                 | ... | ... | ... |
| 49007    | 7401N      | DIP-14 | Quad 2-input NAND gates (O.C.)          | ... | ... | ... |
| 49015    | 7402N      | DIP-14 | Quad 2-input NOR gates                  | ... | ... | ... |
| 49040    | 7404N      | DIP-14 | Hex inverters                           | ... | ... | ... |
| 49074    | 7405N      | DIP-14 | Hex inverters (O.C.)                    | ... | ... | ... |
| 49091    | 7406N      | DIP-14 | Hex inverter buffer/drivers (O.C.)      | ... | ... | ... |
| 49120    | 7407N      | DIP-14 | Hex buffer/drivers (O.C.)               | ... | ... | ... |
| 49146    | 7408N      | DIP-14 | Quad 2-input AND gates                  | ... | ... | ... |
| 49189    | 7410N      | DIP-14 | Triple 3-input NAND gates               | ... | ... | ... |
| 295777   | 7411N      | DIP-16 | Triple 3-input AND gates                | ... | ... | ... |
| 49402    | 7413N      | DIP-14 | Dual 4-input NAND gates Schmitt trigger | ... | ... | ... |
| 49437    | 7414N      | DIP-14 | Hex inverters Schmitt trigger           | ... | ... | ... |
| 49630    | 7416N      | DIP-14 | Hex inverter buffer/drivers (O.C.)      | ... | ... | ... |
| 49728    | 7417N      | DIP-14 | Hex buffer/drivers (O.C. hi-voltage)    | ... | ... | ... |
| 50008    | 7420N      | DIP-14 | Dual 4-input NAND gates                 | ... | ... | ... |
| 50139    | 7427N      | DIP-14 | Triple 3-input NOR gates                | ... | ... | ... |
| 50227    | 7430N      | DIP-14 | 8-input NAND gate                       | ... | ... | ... |
| 50235    | 7432N      | DIP-14 | Quad 2-input OR gates                   | ... | ... | ... |
| 50315    | 7438N      | DIP-14 | Quad 2-input NAND buffers (O.C.)        | ... | ... | ... |
| 50374    | 7442N      | DIP-16 | BCD-to-decimal decoder                  | ... | ... | ... |
| 50403    | 7445N      | DIP-16 | BCD-to-decimal decoder/driver           | ... | ... | ... |
| 50411    | 7446N      | DIP-16 | BCD-to-7 segment decoder/driver (H.O.)  | ... | ... | ... |

\* 10 pcs./\*\* 20 pcs. in 7400 series IC cabinet kit, below  Blue Part No. = Limited Quantity Available

## 7400 Series IC Kit

Includes:

20-drawer component cabinet (319600), 20 clear plastic drawers (319601), 20 clear dividers (319611), pg 209 and 30 adhesive labels for drawers to identify parts in kit

10 each: 7402, 7405, 7408, 7410, 7414, 7416, 7417, 7420, 7430, 7432, 7438, 7447, 7470, 7485, 7495, 74107, 74123, 74132, 74151, 74153, 74157, 74160, 74174, 74175, 74279

20 each: 7400, 7404, 7406, 7407, 7474


| Part No. | Description          | Wt. (lbs.) | 1        | 10       |
|----------|----------------------|------------|----------|----------|
| 84953    | 350 pcs. 7400 IC kit | 6.2        | \$149.95 | \$134.95 |

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
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## 7400 Series (Continued)

|          |            |        |   | DIP  |        |        |
|----------|------------|--------|---|---|--------|--------|
| Part No. | Cross Ref. | Pkg.   | Description                               | 1   | 10     | 100    |
| 50420    | 7447N*     | DIP-16 | BCD-to-7 segment decoder/driver (L.O.)    | \$1.49  | \$1.29 | \$ .99 |
| 50526    | 7472N      | DIP-14 | AND gated JK master/slave flip-flop       | 1.95  | 1.67   | (1.25) |
| 50534    | 7473N      | DIP-14 | Dual JK flip-flops with clear             | 1.33  | 1.13   | .84    |
| 50551    | 7474N*     | DIP-14 | Dual D flip-flops                         | .65   | .54    | .429   |
| 50577    | 7475N      | DIP-16 | 4-bit bi-stable latch                     | 2.95  | 2.75   | 2.49   |
| 50593    | 7476N      | DIP-16 | Dual JK flip-flops with preset and clear  | 2.95  | 2.65   | 2.39   |
| 50631    | 7483N      | DIP-16 | 4-bit binary full adder                   | 1.55  | 1.35   | 1.10   |
| 50657    | 7485N*     | DIP-16 | 4-bit magnitude comparator                | 1.19  | .96    | .70    |
| 50665    | 7486N      | DIP-14 | Quad exclusive-OR gates                   | 1.75  | 1.59   | 1.45   |
| 50681    | 7489N      | DIP-16 | 64-bit RAM P 50ns                         | 3.85  | 3.50   | 3.28   |
| 50690    | 7490N      | DIP-14 | Decade counter                            | 1.49  | 1.27   | .95    |
| 50737    | 7492N      | DIP-14 | Divide-by-12 counter                      | 1.49  | 1.29   | 1.07   |
| 50745    | 7493N      | DIP-14 | 4-bit binary counter                      | 1.49  | 1.34   | 1.19   |
| 50770    | 7495N*     | DIP-14 | 4-bit parallel-access shift reg. (K155N)  | .99   | .86    | .57    |
| 50796    | 7497N      | DIP-16 | Synch. 6-bit binary rate multipliers      | 2.69  | 2.32   | 1.71   |
| 49234    | 74107N*    | DIP-14 | Dual JK flip-flop with clear              | .57   | .484   | (.363) |
| 49322    | 74121N     | DIP-14 | Monostable multivibrator                  | 1.25  | 1.15   | 1.00   |
| 49357    | 74123N*    | DIP-16 | Dual retriggerable mono. multivibrator    | 1.19  | 1.02   | .76    |
| 49373    | 74125N     | DIP-14 | Quad bus buffer tri-state (DM8093N)       | 1.19  | 1.09   | .95    |
| 49411    | 74132N*    | DIP-14 | Quad 2-input NAND Schmitt trigger         | 1.29  | 1.10   | (.82)  |
| 49496    | 74148N     | DIP-16 | 8 to 3 line octal priority encoder        | 1.24  | 1.05   | (.79)  |
| 49509    | 74150N     | DIP-24 | 16 to 1 line multiplexer                  | 2.39  | 2.11   | 1.95   |
| 49525    | 74151N*    | DIP-16 | 8-input multiplexer                       | .75   | .63    | (.472) |
| 49550    | 74153N*    | DIP-16 | Dual 4/1 data selector/multiplexer        | .84   | .71    | .536   |
| 49568    | 74154N     | DIP-24 | 4 to 16 line decoder/demultiplexer        | 2.25  | 1.95   | 1.75   |
| 49605    | 74157N*    | DIP-16 | Quad 2/1 data selector                    | .99   | .86    | .65    |
| 49648    | 74160N*    | DIP-16 | Decade counter with asynch. clear         | .52   | .46    | .41    |
| 49664    | 74161N     | DIP-16 | Synchronous 4-bit counter w/ direct clear | .77   | .69    | .55    |
| 49672    | 74163N     | DIP-16 | Fully synchronous 4-bit counter           | .89   | .76    | (.57)  |
| 49681    | 74164N     | DIP-14 | 8-bit serial shift register               | .94   | .79    | (.59)  |
| 49779    | 74174N*    | DIP-16 | Hex D-type flip-flop with clear           | 1.09  | .92    | (.69)  |
| 49795    | 74175N*    | DIP-16 | Quad D-type flip-flop with clear          | .94   | .80    | (.60)  |
| 49832    | 74180N     | DIP-14 | 9-bit odd/even parity generator/checker   | 2.89  | 2.46   | 1.84   |
| 49841    | 74181N     | DIP-24 | Arithmetic logic unit/function generator  | 3.59  | 3.25   | 2.93   |
| 49883    | 74189N     | DIP-16 | 64-bit RAM tri-state (DM8599N)            | 3.39  | 2.89   | (2.17) |
| 49904    | 74191N     | DIP-16 | Binary up/down counter                    | 2.05  | 1.73   | (1.30) |
| 49912    | 74192N     | DIP-16 | Decade up/down counter with clear         | 3.69  | 3.39   | 3.19   |
| 49939    | 74193N     | DIP-16 | Binary up/down counter with clear         | 1.99  | 1.75   | 1.60   |
| 49955    | 74194N     | DIP-16 | 4-bit bi-directional shift register       | 1.75  | 1.49   | (1.11) |
| 49963    | 74195N     | DIP-16 | 4-bit parallel-access shift register      | 1.65  | 1.40   | (1.05) |
| 50171    | 74279N*    | DIP-16 | Quad set-reset latch                      | 1.79  | 1.56   | 1.44   |

\*10 pcs. in 7400 series IC cabinet kit, pg 20 \*\*20 pcs. in 7400 series IC cabinet kit, pg 20

## 74C Series

|          |            |        |   | DIP  |        |        |
|----------|------------|--------|---|---|--------|--------|
| Part No. | Cross Ref. | Pkg.   | Description                                 | 1   | 10     | 100    |
| 44222    | 74C00N     | DIP-14 | Quad 2-input NAND gate                      | \$1.15  | \$ .98 | (.73)  |
| 44231    | 74C04N     | DIP-14 | Hex inverter (CD4069)                       | 1.05  | .89    | (.67)  |
| 44257    | 74C14N     | DIP-14 | Hex inverter Schmitt trigger (CD40106)      | .49   | .465   | .42    |
| 44441    | 74C74N     | DIP-14 | Dual D flip-flop                            | 2.25  | 1.53   | 1.16   |
| 44361    | 74C221N    | DIP-16 | Dual monostable multivibrator               | 3.69  | 3.14   | (2.35) |
| 44396    | 74C373N    | DIP-20 | Octal D-type flip-flop with clear tri-state | 3.85  | 3.11   | 2.44   |
| 44409    | 74C374N    | DIP-20 | Octal D-type flip-flop tri-st. (INS82C06N)  | 2.49  | 2.13   | (1.59) |
| 44564    | 74C922N    | DIP-18 | 16-key keyboard encoder (INS8245N)          | 7.05  | 6.79   | 6.19   |
| 44572    | 74C923N    | DIP-20 | 20-key keyboard encoder (INS8246N)          | 6.19  | 5.26   | 4.44   |
| 44581    | 74C925N    | DIP-16 | 4-digit CTR w/ MUX D segment driver         | 15.59   | 13.25  | 9.95   |
| 44599    | 74C926N    | DIP-18 | 4-digit CTR w/ MUX D segment driver         | 10.49   | 8.92   | 7.58   |

## IC Test Clip Series

- For temporary connections to DIP package components
- Heavy-duty spring loaded hinge provides positive contact
- 20 AWG insulated gold contacts
- Color: white


| Part No. | Cross Ref. | Description                       | 1      | 10     | 25     |
|----------|------------|-----------------------------------|--------|--------|--------|
| 22104    | JTC16      | 16-pin (for 8, 14 and 16-pin ICs) | \$6.95 | \$6.25 | \$5.59 |
| 22120    | JTC20      | 20-pin (for 18 and 20-pin ICs)    | 8.95   | 6.50   | 5.35   |
| 22162    | JTC28      | 28-pin (for 24 and 28-pin ICs)    | 10.95  | 9.95   | 8.95   |
| 22189    | JTC40      | 40-pin (for 32 and 40-pin ICs)    | 11.95  | 11.35  | 10.75  |

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product

♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

## 74S Series

|          |            |        |  | DIP  |        |         |
|----------|------------|--------|--|---|--------|---------|
| Part No. | Cross Ref. | Pkg.   | Description                                    | 1   | 10     | 100     |
| 676959   | 74S00N     | DIP-14 | Quad 2-input NAND gates                        | \$ .64  | \$ .54 | \$ .328 |
| 676967   | 74S04N     | DIP-14 | Hex Inverter                                   | .64   | .54    | .328    |
| 676975   | 74S10N     | DIP-14 | Triple 3-input NAND gates                      | .69   | .58    | .35     |
| 676983   | 74S38N     | DIP-14 | Quad 2-input NAND buffer w/ open collector     | 1.06  | 1.01   | .61     |
| 676991   | 74S74N     | DIP-14 | Dual positive edge-triggered D-type flip-flop  | .74   | .63    | .378    |
| 677003   | 74S138N    | DIP-16 | 3-8 line decoder/demultiplexer                 | .99   | .84    | .51     |
| 48557    | 74S189N    | DIP-16 | 64-bit (16 x 4) RAM tri-state (27S03)          | 3.99  | 3.90   | 3.86    |
| 677011   | 74S240N    | DIP-20 | Octal 3-state buffer/line driver/line receiver | 1.79  | 1.53   | 1.09    |
| 677020   | 74S244N    | DIP-20 | Octal 3-state buffer/line driver/line receiver | 1.89  | 1.51   | 1.07    |
| 48696    | 74S287N    | DIP-16 | 1k-bit (256 x 4) PROM tri-state (TBP24S10)     | 11.95   | 10.75  | 9.69    |
| 48717    | 74S288N    | DIP-16 | 256-bit (32 x 8) PROM tri-st. (TBP18S030N)     | 8.15  | 7.03   | 6.04    |
| 48805    | 74S387N    | DIP-16 | 1k-bit (256 x 4) PROM O.C. (TBP24SA10N)        | 3.09  | 2.79   | 2.55    |
| 52513    | 74S428N    | DIP-28 | System contr./bus driver (8228)                | 3.69  | 3.19   | 2.36    |
| 48864    | 74S472N    | DIP-20 | 4k-bit (512 x 8) PROM tri-st. (TBP28S42N)      | 12.95   | 11.65  | 10.49   |

## Tiny Logic® Series

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NEW

\* Minimum order 5 pieces

| Part No. | Cross Ref. | Pkg.     | Description                                | 1      | 5      | 50   |
|----------|------------|----------|--|--------|--------|------|
| 787384   | NC7S00M5   | SOT-23/5 | Single 2-input NAND gate                   | * .41  | * .30  |      |
| 873645   | NC7S04M5   | SOT-23/5 | Single inverter                            | .62    | .52    | .42  |
| 873688   | NC7S08M5   | SOT-23/5 | Single 2-input AND gate                    | .62    | .524   | .421 |
| 873741   | NC7S14M5   | SOT-23/5 | Schmitt input inverter                     | * .285 | * .259 |      |
| 787405   | NC7S14P5   | SC70/5   | Schmitt input inverter                     | * .289 | * .259 |      |
| 787413   | NC7S04M5   | SOT-23/5 | Single inverter w/ TTL comp. inputs        | * .284 | * .259 |      |
| 787421   | NC7S132P5  | SC70/5   | Single 2-input OR gate w/ TTL comp. inputs | * .359 | * .259 |      |
| 873856   | NC7S200M5  | SOT-23/5 | Single 2-input AND gate                    | .61    | .524   | .421 |
| 787430   | NC7S200P5  | SC70/5   | Single 2-input AND gate                    | * .285 | * .259 |      |
| 787448   | NC7S202P5  | SC70/5   | Single 2-input NOR gate                    | * .29  | * .259 |      |
| 873944   | NC7S204M5  | SOT-23/5 | Single inverter                            | .61    | .524   | .421 |
| 787456   | NC7S205P5  | SC70/5   | Single inverter (open drain output)        | * .36  | * .259 |      |
| 874007   | NC7S208M5  | SOT-23/5 | Single 2-input AND gate                    | .62    | .524   | .421 |
| 874066   | NC7S208P5  | SC70/5   | Single 2-input AND gate                    | * .29  | * .259 |      |
| 874251   | NC7S14M5   | SOT-23/5 | Single inverter w/ Schmitt trigger input   | * .289 | * .259 |      |
| 874322   | NC7S14P5   | SC70/5   | Single inverter w/ Schmitt trigger input   | .52    | .437   | .353 |
| 874402   | NC7S32M5   | SOT-23/5 | Single 2-input OR gate                     | .62    | .524   | .421 |
| 874111   | NC7S125M5  | SOT-23/5 | Buffer w/ 3-st. output                     | .62    | .524   | .421 |
| 874171   | NC7S125P5  | SC70/5   | Single buffer w/ 3-st. output              | .62    | .524   | .421 |
| 874218   | NC7S126M5  | SOT-23/5 | Single buffer w/ 3-st. output              | * .296 | * .259 |      |
| 787464   | NC7S126P5  | SC70/5   | Single buffer w/ 3-st. output              | .62    | .524   | .421 |
| 874509   | NC7W204P6  | SC70/6   | Dual inverter                              | * .29  | * .259 |      |
| 787472   | NC7W207P6  | SC70/6   | Dual buffer w/ open drain outputs          | * .269 | * .259 |      |
| 787481   | NC7W214P6  | SC70/6   | Dual inverter w/ Schmitt trigger inputs    | * .269 | * .259 |      |
| 874613   | NC7W216P6  | SC70/6   | Dual buffer                                | * .29  | * .259 |      |
| 874656   | NC7W217P6  | SC70/6   | Dual buffer w/ Schmitt trigger inputs      | * .29  | * .259 |      |

## 74LVT Series (3.3V)

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| Part No. | Cross Ref.      | Pkg.     | Description                              | 1      | 10     | 100    |
|----------|-----------------|----------|--|--------|--------|--------|
| 757724   | SN74LVT125D     | SOIC-14  | 3.3V ABT quad bus buffer w/ 3-st.        | \$1.16 | \$ .98 | \$ .78 |
| 819585   | SN74LVT240DW    | SOIC-20  | 3.3V ABT octal buffer/drivers w/ 3-st.   | .78    | .66    | .529   |
| 757741   | SN74LVT248DW    | SOIC-20  | 3.3V ABT octal buffer/drivers w/ 3-st.   | .53    | .485   | .441   |
| 819614   | SN74LVT248PW    | TSSOP-20 | 3.3V ABT octal buffer/drivers w/ 3-st.   | .53    | .485   | .441   |
| 757804   | SN74LVT8980ADW  | SOIC-24  | Embedded test bus controllers            | 8.65   | 8.17   | 7.68   |
| 757821   | SN74LVT8996DW   | SOIC-24  | 3.3V 10-bit addressable ports            | 8.75   | 8.25   | 7.75   |
| 819526   | SN74LVT1648DL   | SSOP-48  | 3.3V ABT 16-bit buffers/drivers w/ 3-st. | 1.46   | 1.18   | .88    |
| 819551   | SN74LVT1648DL   | SSOP-48  | 3.3V ABT 16-bit bus trans. w/ 3-st.      | 1.46   | 1.18   | .88    |
| 819500   | SN74LVT16224ADL | SSOP-48  | 3.3V ABT 16-bit buffers/drivers w/ 3-st. | 1.46   | 1.18   | .88    |

## 74LVTH Series (3.3V)

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\* Minimum order 5 pieces

| Part No. | Cross Ref.    | Pkg.     | Description                             | 1      | 5      | 50   |
|----------|---------------|----------|---|--------|--------|------|
| 757847   | SN74LVTH125D  | SOIC-14  | 3.3V ABT quad bus buffer w/ 3-st.       | * .291 | * .265 |      |
| 819770   | SN74LVTH240DW | SOIC-20  | 3.3V ABT octal buffers/drivers w/ 3-st. | .84    | .64    | .49  |
| 819796   | SN74LVTH241DW | SOIC-20  | 3.3V ABT octal buffers/drivers w/ 3-st. | .84    | .64    | .49  |
| 757943   | SN74LVTH244PW | TSSOP-20 | 3.3V ABT octal buffers/drivers w/ 3-st. | .77    | .58    | .441 |

DIP  SOIC  SSOP  TSSOP  SC70  SOT-23 



# 74LVT, 74LVX, 74LCX, 74VHC & ECL Series



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## 74LVTH Series (Cont.)

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| Part No. | Cross Ref.      | Pkg.     | Description  | 1    | 5    | 50   |
|----------|-----------------|----------|--|------|------|------|
| 757986   | SN74LVTH245DWM  | SOIC-20  | 3.3V ABT octal bus trans. w/ 3-st. ....                  | .77  | .58  | .441 |
| 758022   | SN74LVTH273DWM  | SOIC-20  | 3.3V ABT octal D-type F-F w/ clear .....                 | .77  | .58  | .431 |
| 819825   | SN74LVTH273PW   | TSSOP-20 | 3.3V ABT octal D-type F-F w/ clear .....                 | .77  | .58  | .441 |
| 819850   | SN74LVTH374DWM  | SOIC-20  | 3.3V ABT octal edge-trig D-type F-F w/ 3-st. ....        | .77  | .58  | .441 |
| 819921   | SN74LVTH541PW   | TSSOP-20 | 3.3V ABT octal bus buffers/drivers w/ 3-st. ....         | 1.35 | 1.14 | .92  |
| 758049   | SN74LVTH573DWM  | SOIC-20  | 3.3V ABT octal transparent D-type latches w/ 3-st. ....  | .77  | .59  | .441 |
| 757880   | SN74LVTH16244AD | SSOP-48  | 3.3V ABT 16-bit buffers/drivers w/ 3-st. ....            | .66  | .56  | .56  |
| 819631   | SN74LVTH16373D  | SSOP-48  | 3.3V ABT 16-bit transparent D-type latches w/ 3-st. .... | 1.16 | .98  | .78  |
| 757901   | SN74LVTH16374D  | SSOP-48  | 3.3V ABT 16-bit edge-trig D-type F-F w/ 3-st. ....       | 1.16 | .98  | .78  |
| 819657   | SN74LVTH16501D  | SSOP-56  | 3.3V ABT 18-bit universal bus brrx w/ 3-st. ....         | 1.69 | 1.37 | 1.02 |
| 819681   | SN74LVTH16541D  | SSOP-48  | 3.3V ABT 16-bit buffers/drivers w/ 3-st. ....            | 1.69 | 1.37 | 1.21 |
| 819711   | SN74LVTH245DWM  | SOIC-20  | 3.3V ABT octal bus transceivers w/ 3-st. ....            | .76  | .58  | .441 |
| 819745   | SN74LVTH245PW   | TSSOP-20 | 3.3V ABT octal bus transceivers w/ 3-st. ....            | .76  | .58  | .431 |
| 757863   | SN74LVTH16244D  | SSOP-48  | 3.3V ABT 16-bit buffers/drivers w/ 3-st. ....            | 1.16 | .98  | .78  |



## 74LVX/74LVXC (3.3V)

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| Part No. | Cross Ref.    | Pkg.     | Description  | 1      | 5      | 50  |
|----------|---------------|----------|--|--------|--------|-----|
| 784378   | 74LVX00MTC    | TSSOP-14 | Quad 2-input AND gate .....                            | * .151 | * .121 |     |
| 784386   | 74LVX04M      | SOIC-14  | Hex inverter .....                                     | * .244 | * .185 |     |
| 784394   | 74LVX132M     | SOIC-14  | Quad 2-input NAND schmitt trigger .....                | * .291 | * .225 |     |
| 784407   | 74LVX14M      | SOIC-14  | Hex inverter w/ schmitt trigger input .....            | * .243 | * .186 |     |
| 869689   | 74LVX14MTC    | TSSOP-14 | Hex inverter w/ schmitt trigger input .....            | * .16  | * .13  |     |
| 869718   | 74LVX3245MTC  | TSSOP-24 | 8-bit dual supply translating trans. w/ 3-st. ....     | 1.11   | .90    | .67 |
| 784423   | 74LVX541M     | SOIC-20  | Octal buffer/line driver w/ 3-st. (non-inverting) .... | * .259 | * .207 |     |
| 869734   | 74LVXC3245MTC | TSSOP-24 | 8-bit dual supply volt. interface trans. w/ 3-st. .... | .81    | .65    | .56 |
| 784431   | 74LVXC4245OSC | OSOP-24  | 8-bit dual supply volt. interface trans. w/ 3-st. .... | .72    | .71    | .69 |
| 784440   | 74LVXC4245WM  | SOIC-24  | 8-bit dual supply volt. interface trans. w/ 3-st. .... | .81    | .76    | .71 |



## 74LCX Series (3.3V)

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| Part No. | Cross Ref.    | Pkg.     | Description                            | 1      | 5      | 50   |
|----------|---------------|----------|--|--------|--------|------|
| 868871   | 74LCX00MTC    | TSSOP-14 | Quad 2-input NAND gate .....           | * .175 | * .137 |      |
| 868900   | 74LCX04M      | SOIC-14  | Hex inverter .....                     | * .136 | * .108 |      |
| 868934   | 74LCX04MTC    | TSSOP-14 | Hex inverter .....                     | * .227 | * .172 |      |
| 784247   | 74LCX07M      | SOIC-14  | Hex buffer open drain output .....     | * .175 | * .137 |      |
| 868969   | 74LCX08M      | SOIC-14  | Quad 2-input AND gate .....            | * .203 | * .154 |      |
| 868985   | 74LCX08MTC    | TSSOP-14 | Quad 2-input AND gate .....            | * .227 | * .172 |      |
| 869030   | 74LCX11MTC    | TSSOP-14 | Triple 3-input AND gate .....          | * .211 | * .173 |      |
| 869056   | 74LCX125M     | SOIC-14  | Quad buffer with 3-st. ....            | * .18  | * .137 |      |
| 869081   | 74LCX125MTC   | TSSOP-14 | Quad buffer with 3-st. ....            | * .18  | * .146 |      |
| 869110   | 74LCX138M     | SOIC-16  | 1-of-8 decoder/demultiplexer .....     | * .218 | * .176 |      |
| 869152   | 74LCX138MTC   | TSSOP-16 | 1-of-8 decoder/demultiplexer .....     | * .16  | * .13  |      |
| 869179   | 74LCX14M      | SOIC-14  | Hex inverter .....                     | * .165 | * .134 |      |
| 869208   | 74LCX14MTC    | TSSOP-14 | Hex inverter .....                     | * .262 | * .196 |      |
| 784255   | 74LCX16244MTD | TSSOP-48 | 16-bit buffer/line driver .....        | .58    | .484   | .388 |
| 784263   | 74LCX16244MTD | TSSOP-48 | 16-bit buffer/line driver .....        | .58    | .484   | .388 |
| 784271   | 74LCX16244MEA | SSOP-48  | 16-bit buffer/line driver .....        | .90    | .73    | .61  |
| 869232   | 74LCX16244MTD | TSSOP-48 | 16-bit buffer/line driver .....        | .58    | .471   | .37  |
| 869275   | 74LCX16245MEA | SSOP-48  | 16-bit bidirectional transceiver ..... | .91    | .72    | .61  |
| 869312   | 74LCX16245MTD | TSSOP-48 | 16-bit bidirectional transceiver ..... | .58    | .471   | .37  |
| 784298   | 74LCX16373MEA | SSOP-48  | 16-bit transparent latch .....         | .90    | .73    | .61  |
| 784301   | 74LCX16373MTD | TSSOP-48 | 16-bit transparent latch .....         | .59    | .471   | .388 |
| 869371   | 74LCX244MTC   | TSSOP-20 | Buffer/line driver .....               | * .194 | * .15  |      |
| 869427   | 74LCX245MTC   | TSSOP-20 | Bidirectional transceiver .....        | * .194 | * .15  |      |
| 869486   | 74LCX245WM    | SOIC-20  | Bidirectional transceiver .....        | * .194 | * .19  |      |
| 869540   | 74LCX541MTC   | TSSOP-20 | Octal buffer/line driver .....         | * .326 | * .245 |      |
| 784319   | 74LCX541WM    | SOIC-20  | Octal buffer/line driver .....         | * .261 | * .242 |      |
| 869574   | 74LCX74M      | SOIC-14  | Dual D-type pos. edge trig. F-F .....  | * .165 | * .127 |      |
| 869591   | 74LCX74MTC    | TSSOP-14 | Dual D-type pos. edge trig. F-F .....  | * .149 | * .099 |      |

1 5V tolerant inputs 2 5V tolerant inputs and outputs 3 non-inverting  
4 5V tolerant schmitt trigger inputs 5 3-state outputs, non-inverting 6 with 26Ω series resistors



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♣ RoHS compliant product ♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



## 74LVT/74LVTH Series (3.3V)

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| Part No. | Cross Ref.     | Pkg.     | Description                             | 1      | 5      | 50     |
|----------|----------------|----------|---|--------|--------|--------|
| 784327   | 74LVT16224MTD  | TSSOP-48 | 16-bit buffer/line driver w/ 3-st. .... | * .65  | * .524 | * .431 |
| 784335   | 74LVT16244MEA  | SSOP-48  | 16-bit buffer/line driver w/ 3-st. .... | .82    | .69    | .56    |
| 869611   | 74LVT16244MTD  | TSSOP-48 | 16-bit buffer/line driver w/ 3-st. .... | * .65  | * .524 | * .412 |
| 869638   | 74LVT244MTC    | TSSOP-20 | Octal buffer/line driver w/ 3-st. ....  | * .277 | * .224 |        |
| 784343   | 74LVT162374MTD | TSSOP-48 | 16-bit D-type flip-flop w/ 3-st. ....   | .63    | .531   | .431   |
| 784351   | 74LVT16245MTD  | TSSOP-48 | 16-bit transceiver w/ 3-st. ....        | .65    | .524   | .431   |
| 784360   | 74LVT244MTC    | TSSOP-20 | Octal buffer/line driver w/ 3-st. ....  | * .34  | * .274 |        |

1 3-state outputs, non-inverting 2 with 25Ω series resistors



## 74VHC/74VHCT Series

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| Part No. | Cross Ref.    | Pkg.     | Description                               | 1      | 5      | 50   |
|----------|---------------|----------|---|--------|--------|------|
| 869769   | 74VHC00M      | SOIC-14  | Quad 2-input NAND gate .....              | * .126 | * .118 |      |
| 784482   | 74VHC02M      | SOIC-14  | Quad 2-input NOR gate .....               | * .146 | * .118 |      |
| 784491   | 74VHC04MTC    | TSSOP-14 | Hex inverter .....                        | * .262 | * .196 |      |
| 869793   | 74VHC08M      | SOIC-14  | Quad 2-input AND gate .....               | * .126 | * .118 |      |
| 869822   | 74VHC123AM    | SOIC-16  | Dual retrigger. mono. multivibrator ..... | * .213 | * .165 |      |
| 784503   | 74VHC125MTC   | TSSOP-14 | Quad buffer w/ 3-st. ....                 | * .306 | * .212 |      |
| 869857   | 74VHC138M     | SOIC-16  | 3-to-8 decoder/demultiplexer .....        | * .259 | * .207 |      |
| 784511   | 74VHC138MTC   | TSSOP-16 | 3-to-8 decoder/demultiplexer .....        | * .259 | * .207 |      |
| 869873   | 74VHC14M      | SOIC-14  | Hex schmitt inverter .....                | * .146 | * .127 |      |
| 784520   | 74VHC16284MTD | TSSOP-48 | IEEE 1284 transceiver .....               | .90    | .81    | .73  |
| 784538   | 74VHC161M     | SOIC-16  | 4-bit binary cntnr w/ asynch. clear ..... | * .324 | * .259 |      |
| 784546   | 74VHC163MTC   | TSSOP-16 | 4-bit binary cntnr w/ synch clear .....   | * .344 | * .267 |      |
| 869911   | 74VHC244MTC   | SOIC-20  | Octal buffer/line driver w/ 3-st. ....    | * .179 | * .138 |      |
| 784554   | 74VHC245M     | SOIC-20  | Octal bidirectional trans. w/ 3-st. ....  | * .188 | * .147 |      |
| 784562   | 74VHC245MTC   | TSSOP-20 | Octal bidirectional trans. w/ 3-st. ....  | * .183 | * .147 |      |
| 869937   | 74VHC32M      | SOIC-14  | Quad 2-input OR gate .....                | * .126 | * .118 |      |
| 784571   | 74VHC4040M    | SOIC-16  | 12-stage binary counter .....             | .61    | .524   | .423 |
| 784589   | 74VHC4046M    | SOIC-16  | CMOS phase lock loop .....                | * .334 | * .267 |      |
| 869970   | 74VHC541MTC   | SOIC-20  | Octal buffer/line driver w/ 3-st. ....    | * .233 | * .216 |      |
| 870014   | 74VHC573M     | SOIC-20  | Octal D-type latch w/ 3-st. ....          | * .216 | * .173 |      |
| 870031   | 74VHC595MTC   | TSSOP-16 | 8-bit shift reg. w/ output latches .....  | * .193 | * .155 |      |
| 784597   | 74VHC74M      | SOIC-14  | Dual D-type F-F w/ preset & clear .....   | * .146 | * .127 |      |
| 784600   | 74VHCT04AM    | SOIC-14  | Hex inverter .....                        | * .11  | * .90  |      |
| 784618   | 74VHCT08AM    | SOIC-14  | Quad 2-input AND gate .....               | * .11  | * .09  |      |
| 784626   | 74VHCT08AMTC  | TSSOP-14 | Quad 2-input AND gate .....               | * .262 | * .196 |      |
| 784634   | 74VHCT14AMTC  | TSSOP-14 | Hex schmitt inverter .....                | * .15  | * .119 |      |
| 784642   | 74VHCT245AM   | SOIC-20  | Octal buffer/line driver w/ 3-st. ....    | * .183 | * .147 |      |
| 784651   | 74VHCT374AM   | SOIC-20  | Octal D-type flip-flop w/ 3-st. ....      | * .183 | * .147 |      |
| 784669   | 74VHCT541AMTC | TSSOP-20 | Octal buffer/line driver w/ 3-st. ....    | .61    | .521   | .431 |
| 784677   | 74VHCT74AMTC  | TSSOP-14 | Dual D-type F-F w/ preset & clear .....   | * .281 | * .206 |      |
| 784685   | 74VHC04MTC    | TSSOP-14 | Hex inverter .....                        | * .262 | * .189 |      |

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| Part No. | Cross Ref. | Pkg.    | Description                                | 1       | 10     | 100    |
|----------|------------|---------|--|---------|--------|--------|
| 867149   | MC10E016FN | PLCC-28 | 5V ECL 8-bit synch. binary up counter      | \$10.39 | \$9.47 | \$8.61 |
| 867165   | MC10E111FN | PLCC-28 | 5V ECL 1:9 diff. clock driver .....        | 9.29    | 8.43   | 7.67   |
| 867190   | MC10EL11D  | SOIC-8  | 5V ECL 1:2 diff. fan out buffer .....      | 5.89    | 5.19   | 4.59   |
| 867229   | MC10EL32D  | SOIC-8  | 5V ECL ÷2 divider .....                    | 4.85    | 4.58   | 4.31   |
| 867253   | MC10EL51D  | SOIC-8  | 5V ECL diff. clock D flip-flop .....       | 4.55    | 4.43   | 4.31   |
| 867270   | MC10EL57D  | SOIC-16 | 5V ECL 4:1 diff. multiplexer .....         | 9.85    | 7.65   | 6.63   |
| 867309   | MC10ELT20D | SOIC-8  | 5V TTL to diff. PECL translator .....      | 4.55    | 4.27   | 3.28   |
| 867333   | MC10ELT21D | SOIC-8  | 5V diff. PECL to TTL translator .....      | 4.55    | 4.27   | 3.28   |
| 867368   | MC10ELT22D | SOIC-8  | 5V dual TTL to diff. PECL translator ..... | 4.15    | 3.38   | 3.28   |
| 867392   | MC10ELT24D | SOIC-8  | 5V TTL to diff. ECL translator .....       | 5.35    | 4.15   | 3.60   |
| 867421   | MC10ELT25D | SOIC-8  | -5V diff. ECL to TTL translator .....      | 4.55    | 4.15   | 3.28   |
| 791551   | MC10H101P  | PDIP-16 | Quad 2-input OR/NOR gate .....             | 2.89    | 2.63   | 2.57   |
| 791578   | MC10H102P  | PDIP-16 | Quad 2-input NOR gate .....                | 2.99    | 2.75   | 2.57   |
| 791594   | MC10H105P  | PDIP-16 | Triple 2-3-2 input OR/NOR gate .....       | 3.09    | 2.82   | 2.57   |
| 791607   | MC10H115P  | PDIP-16 | Quad line receiver .....                   | 3.09    | 2.82   | 2.57   |
| 867456   | MC10H116D  | DIP-16  | Triple line receiver .....                 | 4.35    | 4.07   | 3.35   |
| 867472   | MC10H116FN | PLCC-20 | Triple line receiver .....                 | 3.95    | 3.70   | 3.04   |

# ECL Logic, Dallas, MPU Super., Power Mgmt., LVDS & RS-232

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| Part No. | Cross Ref.       | Pkg.    | Description  | 1      | 10     | 100    |
|----------|------------------|---------|--|--------|--------|--------|
| 867501   | MC10H116P▲       | DIP-16  | Triple line receiver .....                               | \$3.25 | \$2.63 | \$2.57 |
| 791640   | MC10H123PG▲      | PDIP-16 | Triple 4-3-3 input bus driver .....                      | 3.59   | 3.38   | 3.17   |
| 867536   | MC10H124FN▲      | PLCC-20 | Quad TTL-to-MECL translator w/ TTL strobe .....          | 5.75   | 5.49   | 5.24   |
| 791666   | MC10H124PG▲      | PDIP-16 | Quad TTL-to-MECL translator w/ TTL strobe .....          | 5.29   | 4.85   | 4.81   |
| 867587   | MC10H125FN▲      | PLCC-20 | Quad MECL-to-TTL translator .....                        | 8.55   | 6.64   | 5.76   |
| 867616   | MC10H125P▲       | PDIP-16 | Quad MECL-to-TTL translator .....                        | 7.05   | 5.79   | 5.31   |
| 867641   | MC10H131FN▲      | PLCC-20 | Dual D-type master-slave flip-flop .....                 | 6.79   | 5.69   | 5.62   |
| 867667   | MC10H131P▲       | PDIP-16 | Dual D-type master-slave flip-flop .....                 | 5.05   | 4.92   | 4.81   |
| 791682   | MC10H350FNG▲     | PLCC-20 | PECL-to-TTL translator .....                             | 14.19  | 13.01  | 12.92  |
| 867721   | MC10H351P▲       | PDIP-20 | Quad TTL/NMOS to PECL translator .....                   | 21.05  | 19.13  | 17.39  |
| 866349   | MC100EL11D▲      | SOIC-8  | 5V ECL 1:2 diff. fan out buffer .....                    | 5.09   | 4.12   | 3.70   |
| 866373   | MC100EL15D▲      | SOIC-16 | 5V ECL 1:4 clock distribution chip .....                 | 4.55   | 4.19   | 4.14   |
| 791252   | MC100EL16DG▲     | SOIC-8  | 5V ECL diff. receiver .....                              | 3.89   | 3.55   | 3.45   |
| 791279   | MC100EL33DG▲     | SOIC-8  | 5V ECL ÷4 divider .....                                  | 6.05   | 4.90   | 4.41   |
| 791295   | MC100EL34DG▲     | SOIC-16 | 5V ECL ÷2, ÷4, ÷8 clock generation chip .....            | 6.29   | 6.25   | 6.20   |
| 791316   | MC100EL56DWG▲    | SOIC-20 | 5V ECL dual diff. 2:1 multiplexer .....                  | 7.75   | 7.06   | 6.89   |
| 866411   | MC100EL57D▲      | SOIC-16 | 5V ECL 4:1 diff. multiplexer .....                       | 6.79   | 6.17   | 6.03   |
| 791341   | MC100EL58DG▲     | SOIC-8  | 5V ECL 2:1 multiplexer .....                             | 6.25   | 5.69   | 5.17   |
| 791359   | MC100EL91DWG▲    | SOIC-20 | 5V triple PECL to -5V ECL translator .....               | 8.49   | 7.85   | 7.75   |
| 866453   | MC100ELT20D▲     | SOIC-8  | 5V TTL to diff. PECL translator .....                    | 3.69   | 3.39   | 3.28   |
| 866488   | MC100ELT21D▲     | SOIC-8  | 5V diff. to TTL translator .....                         | 3.69   | 3.48   | 3.28   |
| 791375   | MC100ELT22DG▲    | SOIC-8  | 5V dual TTL to diff. PECL translator .....               | 3.69   | 3.38   | 3.28   |
| 866541   | MC100ELT23D▲     | SOIC-8  | 5V dual diff. PECL to TTL translator .....               | 3.69   | 3.38   | 3.28   |
| 791391   | MC100ELT24DG▲    | SOIC-8  | 5V TTL to diff. ECL translator .....                     | 3.69   | 3.38   | 3.28   |
| 866592   | MC100ELT25D▲     | SOIC-8  | -5V differential ECL to TTL translator .....             | 3.69   | 3.38   | 3.28   |
| 791412   | MC100EP08DTG▲    | TSSOP-8 | 3.3V/5V ELC 2-input diff. XOR/XNOR .....                 | 7.65   | 6.97   | 6.81   |
| 866621   | MC100EP11D▲      | SOIC-8  | 3.3V/5V ECL 1:2 diff. fan out buffer .....               | 7.19   | 6.54   | 5.95   |
| 866656   | MC100EP11DT▲     | TSSOP-8 | 3.3V/5V ECL 1:2 diff. fan out buffer .....               | 7.19   | 6.54   | 5.95   |
| 866681   | MC100EP16D▲      | SOIC-8  | 3.3V/5V ECL diff. receiver/driver .....                  | 6.25   | 5.68   | 5.17   |
| 866710   | MC100EP16DT▲     | TSSOP-8 | 3.3V/5V ECL diff. receiver/driver .....                  | 5.79   | 5.32   | 5.17   |
| 866744   | MC100LVE111FN▲   | PLCC-28 | 3.3V ECL 1:9 diff. clock driver .....                    | 9.29   | 8.43   | 7.67   |
| 866779   | MC100LVEL11D▲    | SOIC-8  | 3.3V ECL 1:2 diff. fan out buffer .....                  | 5.89   | 4.59   | 3.98   |
| 866795   | MC100LVEL11DT▲   | TSSOP-8 | 3.3V ECL 1:2 diff. fan out buffer .....                  | 4.09   | 3.72   | 3.62   |
| 866824   | MC100LVEL14DW▲   | SOIC-20 | 3.3V ECL 1:5 clock distribution chip .....               | 8.75   | 8.03   | 7.75   |
| 791439   | MC100LVEL16DG▲   | SOIC-8  | 3.3V ECL diff. receiver .....                            | 3.89   | 3.55   | 3.45   |
| 866875   | MC100LVEL16DT▲   | TSSOP-8 | 3.3V ECL diff. receiver .....                            | 4.19   | 3.79   | 3.45   |
| 866904   | MC100LVEL29DW▲   | SOIC-20 | 3.3V ECL dual diff. D-type F-F w/ sel/clear .....        | 9.39   | 8.52   | 7.75   |
| 791455   | MC100LVEL37DWG▲  | SOIC-20 | 3.3V ECL 1:4 ÷1/÷2 clock fan out buffer .....            | 13.35  | 10.78  | 9.70   |
| 791471   | MC100LVEL51DG▲   | SOIC-8  | 3.3V ECL diff. clock D flip-flop .....                   | 5.45   | 5.31   | 5.17   |
| 791498   | MC100LVEL56DWG▲  | SOIC-20 | 3.3V ECL dual diff. 2:1 multiplexer .....                | 7.75   | 7.06   | 6.89   |
| 866963   | MC100LVEL90DW▲   | SOIC-20 | -3.3V/-5V triple ECL to LVPECL translator .....          | 9.39   | 8.52   | 7.75   |
| 791519   | MC100LVEL91DWG▲  | SOIC-20 | 3.3V triple LVPECL to -3.3V to -5V ECL translator .....  | 8.75   | 7.94   | 7.75   |
| 866998   | MC100LVEL92DW▲   | SOIC-20 | 5V triple PECL to LVPECL translator .....                | 8.75   | 8.03   | 7.75   |
| 867018   | MC100LVELT22D▲   | SOIC-8  | 3.3V dual LVTTTL/LVCMOS to diff. LVPECL translator ..... | 4.55   | 4.27   | 3.28   |
| 791535   | MC100LVELT22DTG▲ | TSSOP-8 | 3.3V dual LVTTTL/LVCMOS to diff. LVPECL translator ..... | 6.19   | 5.77   | 4.46   |
| 867069   | MC100LVELT23D▲   | SOIC-8  | 3.3V dual diff. LVPECL to LVTTTL translator .....        | 4.15   | 3.38   | 3.28   |
| 867093   | MC100LVELT23DT▲  | TSSOP-8 | 3.3V dual diff. LVPECL to LVTTTL translator .....        | 3.69   | 3.55   | 3.41   |
| 867114   | MC100LVEP11DT▲   | TSSOP-8 | 2.5V/3.3V ECL 1:2 diff. fan out buffer .....             | 6.69   | 6.19   | 5.95   |

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| Part No. | Product No. | Pkg.    | Description                                   | 1      | 10     | 100    |
|----------|-------------|---------|---|--------|--------|--------|
| 697258   | DS232A▲     | DIP-16  | Dual RS-232 transmitter/receiver .....        | \$2.99 | \$2.69 | \$2.27 |
| 114198   | DS1210      | DIP-8   | NV controller chip .....                      | 3.79   | 3.07   | 2.13   |
| 114219   | DS1213C     | DIP-28  | Smart socket .....                            | 19.05  | 14.54  | 12.98  |
| 697223   | DS1216B▲    | DIP-28  | Smart watch/RTC (Intelligent socket) .....    | 36.59  | 28.26  | 24.84  |
| 133410   | DS1216C     | DIP-28  | Smart watch/RTC .....                         | 30.55  | 24.55  | 16.75  |
| 114331   | DS1232      | DIP-8   | Micromonitor chip .....                       | 1.85   | 1.34   | 1.02   |
| 697231   | DS1243Y-120 | EMOD-28 | 64k non-volatile SRAM w/ phantom clock .....  | 44.09  | 33.99  | 28.79  |
| 697240   | DS1244Y-70▲ | EMOD-28 | 256k non-volatile SRAM w/ phantom clock ..... | 48.39  | 45.14  | 42.31  |
| 133444   | DS1286▲     | DIP-28  | Watchdog timekeeper .....                     | 22.15  | 16.90  | 12.40  |
| 76646    | DS1287▲     | DIP-24  | Real time clock chip .....                    | 7.25   | 6.15   | 5.53   |
| 176778   | DS1302▲     | DIP-8   | Trickle charge time keeping .....             | 2.75   | 2.10   | 1.28   |

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▲ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product    This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.    Details on page 1.

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| Part No. | Product No. | Pkg.   | Description                              | 1      | 10     | 100    |
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| 114382   | DS1620▲     | DIP-8  | Digital thermometer and thermostat ..... | \$5.35 | \$4.42 | \$3.39 |
| 697266   | DS2430A▲    | TO-92  | 1-wire, 256B EEPROM .....                | 3.29   | 2.48   | 2.21   |
| 697274   | DS2430AP▲   | TSOC-6 | 1-wire, 256B EEPROM .....                | 3.39   | 2.58   | 2.29   |
| 697282   | DS2433▲     | PR-35  | 1-wire, 4KB EEPROM .....                 | 4.59   | 3.59   | 3.46   |
| 697291   | DS2433S▲    | SOIC-8 | 1-wire, 4KB EEPROM .....                 | 5.39   | 5.01   | 4.69   |
| 133452   | DS12887▲    | DIP-24 | Real time clock chip .....               | 8.15   | 6.93   | 5.19   |
| 299997   | DS12887A▲   | DIP-24 | Real time clock chip .....               | 8.15   | 6.22   | 4.15   |

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## MPU Supervisory

| Part No. | Cross Ref.  | Pkg.   | Description                         | 1      | 10     | 100    |
|----------|-------------|--------|-------------------------------------|--------|--------|--------|
| 106219   | MAX690CPA▲  | DIP-8  | Watchdog timer, 4.4V .....          | \$5.45 | \$4.64 | \$3.16 |
| 106227   | MAX691CPE▲  | DIP-16 | Watchdog timer, 4.65V .....         | 5.75   | 3.85   | 3.23   |
| 106260   | MAX1232CPA▲ | DIP-8  | Watchdog timer, 4.65V - 4.75V ..... | 2.85   | 2.25   | 1.55   |

## Power Management

| Part No. | Cross Ref.   | Pkg.   | Description                            | 1      | 10     | 100    |
|----------|--------------|--------|--|--------|--------|--------|
| 792079   | MC1403DG▲    | SOIC-8 | Low-voltage reference .....            | \$ .80 | \$ .76 | \$ .65 |
| 312961   | UC3906N▲     | DIP-16 | Linear lead acid battery charger ..... | 5.15   | 4.89   | 4.63   |
| 241808   | ICL7665SCPA▲ | DIP-8  | 2-16V voltage detector .....           | 2.45   | 2.20   | 1.38   |

## National Semiconductor LVDS

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| Part No. | Cross Ref.       | Pkg.     | Description   | 1      | 10     | 100    |
|----------|------------------|----------|---|--------|--------|--------|
| 891472   | DS90C031BTM▲     | SOIC-16  | Quad CMOS diff. line driver .....                     | \$3.09 | \$2.36 | \$2.21 |
| 833424   | DS90C031TMNOPB▲  | SOIC-16  | Quad CMOS diff. line driver .....                     | 3.09   | 2.37   | 1.82   |
| 891552   | DS90C032BTM▲     | SOIC-16  | Quad CMOS diff. line receiver .....                   | 3.09   | 2.36   | 2.21   |
| 833441   | DS90C032TMNOPB▲  | SOIC-16  | Quad CMOS diff. line receiver .....                   | 1.79   | 1.47   | 1.25   |
| 891632   | DS90C401M▲       | SOIC-8   | Dual LV diff. signaling driver .....                  | 2.39   | 1.84   | 1.73   |
| 891667   | DS90C402M▲       | SOIC-8   | Dual LV diff. signaling receiver .....                | 2.39   | 1.84   | 1.73   |
| 891712   | DS90C22M-8▲      | SOIC-16  | 2 x 2 800Mbps crosspoint switch .....                 | 6.39   | 5.59   | 5.39   |
| 891755   | DS90C285MTD▲     | TSSOP-56 | +3.3V rising data strobe 28-bit ch. link, 66MHz ..... | 6.39   | 5.59   | 5.43   |
| 891798   | DS90C286AMTD▲    | TSSOP-56 | +3.3V rising data strobe 28-bit ch. link, 66MHz ..... | 6.09   | 5.99   | 5.74   |
| 891835   | DS90C286MTD▲     | TSSOP-56 | +3.3V rising data strobe 28-bit ch. link, 66MHz ..... | 6.09   | 5.59   | 5.14   |
| 833467   | DS90LV001TMNOPB▲ | SOIC-8   | 3V buffer .....                                       | 2.29   | 1.69   | 1.31   |
| 892011   | DS90LV017ATM▲    | SOIC-8   | Single high-speed diff. driver .....                  | 1.79   | 1.33   | 1.04   |
| 833491   | DS90LV018ATMNOB▲ | SOIC-8   | 3V Single CMOS diff. line receiver .....              | 2.05   | 1.53   | 1.18   |
| 892096   | DS90LV019TM▲     | SOIC-14  | 3.3V or 5V drv/rcv .....                              | 2.59   | 1.95   | 1.83   |
| 892133   | DS90LV019TMTC▲   | TSSOP-14 | 3.3V or 5V drv/rcv .....                              | 2.39   | 1.95   | 1.83   |
| 892176   | DS90LV027ATM▲    | SOIC-8   | Dual high-speed diff. driver .....                    | 1.89   | 1.43   | 1.11   |
| 892256   | DS90LV028ATMNOB▲ | SOIC-8   | 3V Dual CMOS diff. line receiver .....                | 2.05   | 1.52   | 1.47   |
| 892344   | DS90LV031ATMTC▲  | TSSOP-16 | 3V quad CMOS diff. line driver .....                  | 2.69   | 2.05   | 1.92   |
| 833563   | DS90LV031BTMNOB▲ | SOIC-16  | 3V quad CMOS diff. line driver .....                  | 2.69   | 2.05   | 1.92   |
| 892441   | DS90LV032ATMNOB▲ | SOIC-16  | 3V quad CMOS diff. line receiver .....                | 1.69   | 1.53   | 1.39   |
| 892475   | DS90LV032ATMTC▲  | TSSOP-16 | 3V quad CMOS diff. line receiver .....                | 2.69   | 2.05   | 1.92   |
| 892521   | DS90LV047ATM▲    | SOIC-16  | 3V quad CMOS diff. line driver .....                  | 2.65   | 2.01   | 1.88   |
| 892627   | DS90LV047ATMNOB▲ | TSSOP-16 | 3V quad CMOS diff. line driver .....                  | 2.65   | 2.01   | 1.88   |
| 833598   | DS90LV048ATMNOB▲ | SOIC-16  | 3V quad CMOS diff. line receiver .....                | 2.65   | 2.00   | 1.88   |
| 892707   | DS90LV048ATMTC▲  | TSSOP-16 | 3V quad CMOS diff. line receiver .....                | 2.65   | 2.01   | 1.88   |
| 892740   | DS90LV049TMT▲    | TSSOP-16 | 3V dual line driver w/ dual line rec. .....           | 2.45   | 1.81   | 1.40   |
| 892782   | DS90LV110TMT▲    | TSSOP-28 | 1 to 10 data/clock distributor .....                  | 9.55   | 8.99   | 8.07   |
| 892820   | DS92LV010ATM▲    | SOIC-8   | Bus 3.3V/5V single transceiver .....                  | 3.09   | 2.35   | 2.21   |

## MAXIM RS-232 Drivers/Rec.

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| Part No. | Cross Ref.  | Pkg.     | Description                                     | 1      | 10     | 100    |
|----------|-------------|----------|---|--------|--------|--------|
| 807980   | MAX201CWE▲  | SOIC-16  | +5V dual RS-232 trans. w/ 0.1µF ext. cap .....  | \$3.19 | \$2.45 | \$2.16 |
| 808000   | MAX202CSE+▲ | SOIC-16  | +5V dual RS-232 trans. w/ 0.1µF ext. cap .....  | 3.09   | 2.44   | 2.16   |
| 808034   | MAX202CWE▲  | SOIC-16  | +5V dual RS-232 trans. w/ 0.1µF ext. cap .....  | 3.09   | 2.44   | 2.16   |
| 881979   | MAX202ECE▲  | DIP-16   | ±15kV ESD-protect, +5V dual RS-232 trans. ..... | 3.89   | 3.09   | 2.73   |
| 881995   | MAX202ECSE▲ | SOIC-16  | ±15kV ESD-protect, +5V dual RS-232 trans. ..... | 3.89   | 3.09   | 2.73   |
| 882015   | MAX202ECWE▲ | SOIC-16  | ±15kV ESD-protect, +5V dual RS-232 trans. ..... | 3.89   | 3.09   | 2.73   |
| 882023   | MAX202EESE▲ | SOIC-16  | ±15kV ESD-protect, +5V dual RS-232 trans. ..... | 5.05   | 3.98   | 3.52   |
| 808069   | MAX202EEUE▲ | TSSOP-16 | ±15kV ESD-protect, +5V dual RS-232 trans. ..... | 3.89   | 3.54   | 3.22   |

Color Code Legend  
New Sale Lower\$ QtySave

Order 24/7 Toll Free 1-800-831-4242

23



# RS-232 & RS-422/485 Drivers/Receivers



RoHS Compliant Product  
RoHS Also Available

Details on Page 1

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## MAXIM RS-232 Drivers/Rec. (Cont.)

For more Maxim RS-232 visit [www.Jameco.com](http://www.Jameco.com)

| Part No. | Cross Ref.  | Pkg.     | Description   | 1      | 10     | 100    |
|----------|-------------|----------|---|--------|--------|--------|
| 808093   | MAX202EEWE  | SOIC-16  | ±15kV ESD-protect, +5V RS-232 dual trans                | \$4.25 | \$3.86 | \$3.52 |
| 808122   | MAX202EWE   | SOIC-16  | +5V, dual RS-232 trans. w/ 0.1µF ext. cap               | 3.09   | 2.85   | 2.59   |
| 808157   | MAX203CPP   | DIP-20   | +5V, dual RS-232 trans. w/ 0.1µF ext. cap               | 6.95   | 5.49   | 4.84   |
| 882040   | MAX203ECWP  | SOIC-20  | ±15kV ESD-protect, +5V RS-232 trans.                    | 7.59   | 5.99   | 5.29   |
| 882066   | MAX203EEWP  | SOIC-20  | ±15kV ESD-protect, +5V RS-232 trans.                    | 10.99  | 8.55   | 7.55   |
| 882082   | MAX203EWP   | SOIC-20  | +5V, dual RS-232 trans. w/ 0.1µF ext. cap               | 7.05   | 6.39   | 5.81   |
| 808181   | MAX207CAG   | SSOP-24  | +5V, RS-232 trans. w/ 0.1µF ext. cap                    | 6.25   | 5.68   | 5.17   |
| 882103   | MAX208CNG   | DIP-24   | +5V, RS-232 trans. w/ 0.1µF ext. cap                    | 7.05   | 5.57   | 4.91   |
| 882120   | MAX208CWG   | SOIC-24  | +5V, RS-232 trans. w/ 0.1µF ext. cap                    | 7.05   | 5.57   | 4.91   |
| 808211   | MAX208EAG   | SSOP-24  | +5V, RS-232 trans. w/ 0.1µF ext. cap                    | 7.45   | 6.76   | 6.15   |
| 808245   | MAX208ECAG  | SSOP-24  | ±15kV ESD-protect, +5V RS-232 trans.                    | 8.15   | 6.44   | 5.69   |
| 808270   | MAX208ECNG  | DIP-24   | ±15kV ESD-protect, +5V RS-232 trans.                    | 8.15   | 6.44   | 5.69   |
| 882138   | MAX208EAG   | SSOP-24  | ±15kV ESD-protect, +5V RS-232 trans.                    | 10.75  | 8.41   | 7.43   |
| 808333   | MAX211CWI   | SOIC-28  | +5V, RS-232 trans. w/ 0.1µF ext. cap                    | 6.79   | 5.59   | 4.91   |
| 808368   | MAX211EAI   | SSOP-28  | +5V, RS-232 trans. w/ 0.1µF ext. cap                    | 7.45   | 6.75   | 6.15   |
| 808405   | MAX211ECWI  | SOIC-28  | ±15kV ESD-protect, +5V RS-232 trans. 4 drv/5 rec.       | 7.75   | 6.61   | 5.69   |
| 808421   | MAX211EEAI  | SSOP-28  | ±15kV ESD-protect, +5V RS-232 trans. 4 drv/5 rec.       | 10.79  | 8.43   | 7.44   |
| 808448   | MAX211EWI   | SOIC-28  | +5V, RS-232 trans. w/ 0.1µF ext. cap                    | 7.15   | 6.48   | 5.89   |
| 808464   | MAX212CAG   | SSOP-24  | +3V powered, LP, true RS-232 trans.                     | 6.79   | 6.19   | 5.64   |
| 808481   | MAX213EAI   | SSOP-28  | +5V, RS-232 trans. w/ 0.1µF ext. cap                    | 7.45   | 6.76   | 6.15   |
| 808544   | MAX214CPI   | DIP-28   | Prog. DTE/DCE, +5V dual RS-232 trans.                   | 7.79   | 7.07   | 6.43   |
| 808595   | MAX220CPE   | DIP-16   | +5V powered multi chnl dual RS-232 drv./rec.            | 5.15   | 4.06   | 3.59   |
| 808616   | MAX220CSE   | SOIC-16  | +5V powered multi chnl dual RS-232 drv./rec.            | 5.15   | 4.06   | 3.59   |
| 882154   | MAX222EWN   | SOIC-18  | +5V powered multi chnl dual RS-232 drv./rec.            | 5.15   | 4.29   | 3.79   |
| 808755   | MAX223EWI   | SOIC-28  | +5V powered multi chnl RS-232 4 drv/5 rec.              | 9.59   | 7.31   | 6.43   |
| 808771   | MAX231CWE   | SOIC-16  | +5V powered multi chnl dual RS-232 drv./rec.            | 3.09   | 2.44   | 2.16   |
| 808798   | MAX231EPD   | DIP-14   | +5V powered multi chnl dual RS-232 drv./rec.            | 3.15   | 2.85   | 2.59   |
| 882293   | MAX232ECPE  | DIP-16   | ±15kV ESD-protected, +5V RS-232 trans.                  | 3.89   | 3.09   | 2.73   |
| 882314   | MAX232ECSE  | SOIC-16  | ±15kV ESD-protected, +5V RS-232 trans.                  | 3.89   | 3.09   | 2.73   |
| 808886   | MAX232EEPE  | DIP-16   | ±15kV ESD-protected, +5V RS-232 trans.                  | 5.05   | 3.98   | 3.52   |
| 808907   | MAX232EESE  | SOIC-16  | ±15kV ESD-protected, +5V RS-232 trans.                  | 5.05   | 3.98   | 3.52   |
| 808923   | MAX232EEWE  | SOIC-16  | ±15kV ESD-protected, +5V RS-232 trans.                  | 5.05   | 3.98   | 3.52   |
| 808991   | MAX234CPE   | DIP-16   | +5V powered multichnl RS-232 drv./rec. 4 drv.           | 5.49   | 4.35   | 3.83   |
| 882461   | MAX238CWG   | SOIC-24  | +5V powered multichnl RS-232 quad drv./rec.             | 7.05   | 5.40   | 4.91   |
| 809011   | MAX238ENG   | DIP-24   | +5V powered multichnl RS-232 quad drv./rec.             | 6.79   | 6.60   | 6.41   |
| 809037   | MAX238EWG   | SOIC-24  | +5V multi chnl RS-232 quad drv./rec.                    | 8.45   | 6.77   | 5.89   |
| 809053   | MAX239CNG   | DIP-24   | +5V multi chnl RS-232 3 drv./5 rec.                     | 7.05   | 5.59   | 4.91   |
| 809070   | MAX241CWI   | SOIC-28  | +5V multi chnl RS-232 4 drv./5 rec.                     | 7.05   | 5.59   | 4.91   |
| 809109   | MAX241EWI   | SOIC-28  | +5V multi chnl RS-232 4 drv./5 rec.                     | 7.15   | 6.48   | 5.89   |
| 809125   | MAX242CPN   | DIP-18   | +5V multi chnl dual RS-232 drv./rec.                    | 4.75   | 3.61   | 3.17   |
| 882496   | MAX242CWN   | SOIC-18  | +5V multi chnl dual RS-232 drv./rec.                    | 4.55   | 3.61   | 3.17   |
| 809141   | MAX242EPN   | DIP-18   | +5V multi chnl dual RS-232 drv./rec.                    | 4.59   | 4.17   | 3.79   |
| 882517   | MAX242EWN   | SOIC-18  | +5V multi chnl dual RS-232 drv./rec.                    | 5.45   | 4.17   | 3.79   |
| 809221   | MAX248CQH-D | PLCC-44  | +5V multi chnl octal RS-232 drv./rec.                   | 19.15  | 15.15  | 13.18  |
| 882533   | MAX250CPD   | DIP-14   | +5V isolated dual RS-232 drv./rec.                      | 7.15   | 5.47   | 4.98   |
| 882550   | MAX250CSD   | SOIC-14  | +5V isolated dual RS-232 drv./rec.                      | 7.85   | 6.23   | 5.48   |
| 809248   | MAX250EPD   | DIP-14   | +5V isolated dual RS-232 drv./rec.                      | 8.59   | 7.83   | 7.12   |
| 809264   | MAX250ESD   | SOIC-14  | +5V isolated dual RS-232 drv./rec.                      | 11.35  | 8.90   | 7.82   |
| 882584   | MAX251CPD   | DIP-14   | +5V isolated dual RS-232 drv./rec.                      | 7.15   | 5.47   | 4.98   |
| 882605   | MAX251CSD   | SOIC-14  | +5V isolated dual RS-232 drv./rec.                      | 7.85   | 6.23   | 5.48   |
| 809281   | MAX251EPD   | DIP-14   | +5V isolated dual RS-232 drv./rec.                      | 10.35  | 8.10   | 7.12   |
| 809299   | MAX251ESD   | SOIC-14  | +5V isolated dual RS-232 drv./rec.                      | 11.35  | 8.99   | 7.82   |
| 810345   | MAX3093ECSE | SOIC-16  | ±15kV ESD-protect, 5V LP quad RS-422/RS-485 rec.        | 2.39   | 2.16   | 1.97   |
| 810361   | MAX3093EESE | SOIC-16  | ±15kV ESD-protect, 5V LP quad RS-422/RS-485 rec.        | 3.39   | 3.07   | 2.79   |
| 810388   | MAX3093EEUE | TSSOP-16 | ±15kV ESD-protect, 5V LP quad RS-422/RS-485 rec.        | 3.39   | 3.07   | 2.79   |
| 810409   | MAX3094EEUE | TSSOP-16 | ±15kV ESD-protect, 5V LP quad RS-422/RS-485 rec.        | 3.99   | 3.21   | 2.79   |
| 807744   | MAX3209ECUU | TSSOP-38 | ±15kV ESD protect, 12V dual RS-232 serial w/ LP standby | 5.55   | 4.64   | 3.72   |
| 807859   | MAX3223ECAP | SSOP-20  | 1µA cur., 120kbps, dual RS-232 trans. w/ autoshtdn      | 4.45   | 3.72   | 3.28   |
| 807912   | MAX3223EEAP | SSOP-20  | 1µA cur., 120kbps, dual RS-232 trans. w/ autoshtdn      | 6.75   | 5.33   | 4.69   |
| 807971   | MAX3224CAP  | SSOP-20  | 1µA cur., 250kbps, dual RS-232 trans. w/ autoshtdn      | 3.75   | 3.10   | 2.73   |
| 808018   | MAX3224EAP  | SSOP-20  | 1µA cur., 250kbps, dual RS-232 trans. w/ autoshtdn      | 4.49   | 4.34   | 4.22   |
| 808106   | MAX3224EEUP | TSSOP-20 | 1µA cur., 250kbps, dual RS-232 trans. w/ autoshtdn      | 4.99   | 4.84   | 4.70   |
| 808131   | MAX3225CAP  | SSOP-20  | 1µA cur., 1Mbps, dual RS-232 trans. w/ autoshtdn        | 3.99   | 3.20   | 2.73   |
| 808165   | MAX3225EEUP | DIP-20   | 1µA cur., 1Mbps, dual RS-232 trans. w/ autoshtdn        | 5.25   | 4.75   | 4.33   |

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product

♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.

## MAXIM RS-232 Drivers/Rec. (Cont.)

For more Maxim RS-232 visit [www.Jameco.com](http://www.Jameco.com)

| Part No. | Cross Ref.  | Pkg.     | Description   | 1      | 10     | 100    |
|----------|-------------|----------|---|--------|--------|--------|
| 808190   | MAX3226CAE  | SSOP-16  | 1µA cur., 250kbps, single RS-232 trans. w/ autoshtdn          | \$2.55 | \$2.15 | \$1.85 |
| 808430   | MAX3238CAI  | SSOP-28  | 1µA, 250kbps, RS-232 trans. w/ autoshtdn                      | 5.89   | 5.38   | 4.89   |
| 883528   | MAX3238EAI  | SSOP-28  | 10nA, 250kbps, RS-232 trans. w/ autoshtdn                     | 10.15  | 7.23   | 7.00   |
| 808456   | MAX3241CAI  | SSOP-28  | LP, 120kbps, RS-232 trans., 4.0µF ext. cap. (3TRX/GRX)        | 7.05   | 5.57   | 4.89   |
| 808472   | MAX3241EAI  | SSOP-28  | LP, 120kbps, RS-232 trans., 4.0µF ext. cap. (3TRX/GRX)        | 10.55  | 7.96   | 7.00   |
| 809344   | MAX3380EEUP | TSSOP-20 | 1µA, dual RS-232 trans. w/ ±15kV ESD-protect I/O & logic pins | 8.05   | 6.78   | 5.84   |
| 809361   | MAX3381ECUP | TSSOP-20 | 1µA, dual RS-232 trans. w/ ±15kV ESD-protect I/O & logic pins | 5.99   | 4.79   | 4.09   |
| 809387   | MAX3386EEUP | TSSOP-20 | ±15kV ESD-protect RS-232 trans. For PDA & cell phones         | 5.09   | 4.21   | 3.71   |
| 809408   | MAX3386EEUP | TSSOP-20 | ±25kV ESD-protect RS-232 trans. For PDA & cell phones         | 5.49   | 5.00   | 4.55   |



## RS-232 Drivers/Rec.

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\* Minimum order 5 pieces

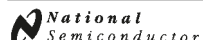
| Part No. | Cross Ref. | Pkg.     | Description  | 1       | 5       | 50   |
|----------|------------|----------|--|---------|---------|------|
| 698550   | MAX232D    | SOIC-16  | Dual EIA-232 drivers/receivers                       | \$0.339 | \$0.329 |      |
| 698568   | MAX232DW   | SOIC-16  | Dual EIA-232 drivers/receivers                       | .87     | .73     | .59  |
| 698613   | MAX232CD   | SOIC-16  | 3-5.5V multich RS-232 line drv/rec w/ ±15kV ESD      | 1.46    | 1.42    | 1.18 |
| 698576   | MAX232N    | DIP-16   | Dual EIA-232 drivers/receivers                       | .89     | .73     | .56  |
| 698584   | MAX3221CDB | SSOP-16  | 3-5.5V snl RS-232 line drv/rec w/ ±15kV ESD          | 1.28    | 1.24    | 1.04 |
| 698592   | MAX3221CPW | TSSOP-16 | 3-5.5V snl RS-232 line drv/rec w/ ±15kV ESD          | 1.28    | 1.16    | 1.04 |
| 698605   | MAX3221PW  | TSSOP-16 | 3-5.5V snl RS-232 line drv/rec w/ ±15kV ESD          | 1.39    | 1.18    | .89  |
| 698621   | MAX3232CPW | TSSOP-16 | 3-5.5V multich RS-232 line drv/rec w/ ±15kV E        | 1.39    | 1.29    | 1.15 |
| 698630   | MAX3232PW  | TSSOP-16 | 3-5.5V multich RS-232 line drv/rec w/ ±15kV E        | 1.59    | 1.40    | 1.14 |
| 698648   | MAX3243CDB | SSOP-28  | 3-5.5V multich RS-232 line drv/rec w/ ±15kV ESD(HBM) | 1.28    | 1.24    | .80  |
| 698656   | MAX3243PW  | TSSOP-28 | 3-5.5V multich RS-232 line drv/rec w/ ±15kV ESD(HBM) | 1.39    | 1.30    | 1.16 |

## RS-232 Drivers/Receivers

Package (see pg 25)

| Part No. | Mfr. | Cross Ref. | Pkg.     | Description                           | 1      | 10     | 100    |
|----------|------|------------|----------|---------------------------------------|--------|--------|--------|
| 142535   | +    | HIN202CP   | DIP-16   | 5V, 120kbps, w/ 0.1µF ext. caps       | \$2.65 | \$2.10 | \$1.57 |
| 244232   | +    | MAX202CSE  | SOIC-16  | 5V, 120kbps, w/ 0.1µF ext. caps       | 1.55   | 1.25   | .94    |
| 244241   | +    | MAX202EPE  | DIP-16   | 5V, 120kbps, w/ 0.1µF ext. caps       | 1.29   | 1.14   | .99    |
| 244259   | +    | MAX202ESE  | SOIC-16  | 5V, 120kbps, w/ 0.1µF ext. caps       | 1.29   | 1.10   | .82    |
| 312215   | +    | MAX211EAI  | SSOP-28  | 5V, ±15kV ESD-protected               | 7.35   | 5.75   | 4.45   |
| 24811    | +    | MAX232CPE  | * DIP-16 | 5V, 200kbps, multichannel             | 2.19   | 1.85   | 1.45   |
| 318959   | MAX  | MAX232CPE  | * DIP-16 | 5V, 200kbps, multichannel             | 2.89   | 1.77   | 1.49   |
| 106147   | +    | MAX232CWE  | SOIC-16  | 5V, 120kbps, multichannel             | 2.65   | 2.09   | 1.36   |
| 256401   | +    | MAX232DR   | SOIC-16  | 5V, 120kbps, dual driver/receiver     | .74    | .63    | .47    |
| 106155   | +    | MAX232EPE  | DIP-16   | 5V, 120kbps, multichannel             | 3.19   | 2.51   | 1.73   |
| 106163   | +    | MAX233CPP  | DIP-20   | 5V, 120kbps, multichannel             | 6.19   | 4.99   | 4.66   |
| 106171   | +    | MAX235CPG  | DIP-24   | 5V, 120kbps, multichannel             | 13.39  | 10.62  | 7.15   |
| 106180   | +    | MAX238CNG  | DIP-24   | 5V, 120kbps, multichannel             | 6.29   | 4.79   | 3.28   |
| 23157    | +    | DS1488N    | * DIP-14 | 15V, quad line driver                 | .29    | .25    | .22    |
| 16361    | +    | DS14C88N   | DIP-14   | 5-12V, quad line driver               | .65    | .58    | .55    |
| 23181    | +    | DS1489N    | * DIP-14 | 5V, quad line receiver                | .23    | .196   | .147   |
| 16379    | +    | DS14C89N   | DIP-14   | 5V, quad line receiver                | 1.00   | .73    | .55    |
| 252128   | +    | MAX3221CAE | SSOP-16  | 3-5.5V, 120kbps, auto shutdown        | 2.05   | 1.93   | 1.85   |
| 276859   | +    | MAX3232CDR | SOIC-16  | 3-5.5V, 1Mbps, ±15kV ESD protected    | 1.25   | 1.07   | 1.06   |
| 276867   | +    | MAX3232CSE | SOIC-16  | 3-5.5V, 1Mbps, ±15kV ESD protected    | 3.15   | 2.68   | 2.01   |
| 235301   | +    | DS14C232CN | DIP-16   | 5V, LP, TIA/EIA dual driver/receiver  | 2.59   | 1.95   | 1.69   |
| 23181    | +    | SN75189N   | DIP-14   | 5V, quad line receiver                | .23    | .196   | .147   |
| 25099    | +    | MC145406P  | DIP-16   | 5-12V, EIA-232-D/V.28 driver/receiver | 1.95   | 1.75   | 1.59   |

\* 10 pcs. in Linear series IC cabinet kit, pg 31 ♦ Jameco Value Offering

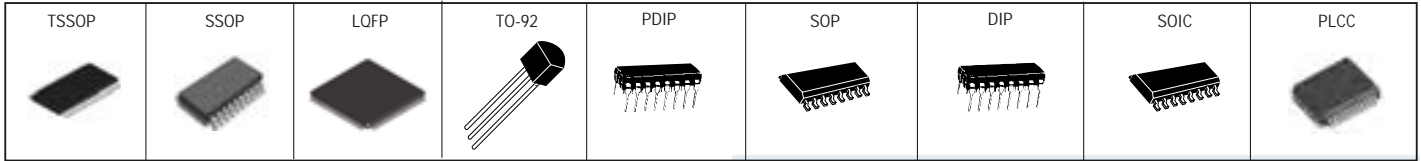


## RS-422/485 Dvr/Rec.

For more National RS-422/485 visit [www.Jameco.com](http://www.Jameco.com)

| Part No. | Cross Ref.     | Pkg.      | Description                               | 1      | 10     | 100    |
|----------|----------------|-----------|---|--------|--------|--------|
| 832018   | DS14185WM      | SOIC-20   | EIA/TIA-232 3 x 5 drv./rec.               | \$1.79 | \$1.27 | \$0.95 |
| 832042   | DS1487N/NOPB   | * DIP-8   | LP RS-485 1/4 unit load multipoint trans. | 2.49   | 1.85   | 1.39   |
| 832077   | DS14C232CMNOPB | * SOIC-16 | LP +5V powered TIA/EIA-232 dual drv./rec. | 3.35   | 2.50   | 1.87   |
| 889399   | DS14C232TM     | SOIC-16   | LP +5V powered TIA/EIA-232 dual drv./rec. | 2.89   | 2.71   | 2.07   |
| 889436   | DS14C335MSA    | SOIC-28   | +3.3V supply TIA/EIA-232 3 x 5 drv./rec.  | 7.85   | 6.22   | 4.98   |
| 832851   | DS3691N/MNOPB  | * SOIC-16 | RS-422/RS-423 line drv. w/ 3-st. outputs  | 1.79   | 1.32   | .99    |
| 832886   | DS3691N/MNOPB  | * DIP-16  | RS-422/RS-423 line drv. w/ 3-st. outputs  | 1.35   | 1.10   | .94    |
| 832915   | DS3695AM/MNOPB | * SOIC-8  | Multipoint RS-485/RS-422 trans.           | 1.59   | 1.18   | .87    |
| 891026   | DS3695N/MNOPB  | * DIP-8   | Multipoint RS-485/RS-422 trans.           | 1.07   | .81    | .75    |

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.




















## Manufacturer Cross Reference Table

Jameco Value Offering 

| Manufacturer   | Code | Manufacturer            | Code | Manufacturer      | Code | Manufacturer           | Code | Manufacturer      | Code |
|----------------|------|-------------------------|------|-------------------|------|------------------------|------|-------------------|------|
| Analog Devices | ADI  | Fairchild Semiconductor | FSC  | Maxim Corporation | MAX  | National Semiconductor | NSC  | ST Micro          | ST   |
| Anachip        | ANA  | Linear Technology       | LTC  | Microchip         | MCH  | ON Semi                | ON   | Texas Instruments | TI   |




















## National Semiconductor RS-422/485 Drvr/Rec (Cont.)

For more National Semi visit [www.Jameco.com](http://www.Jameco.com)

| Part No.      | Cross Ref.   | Pkg.    | Description  | 1      | 10     | 100    |
|---------------|--|---------|--|--------|--------|--------|
| <b>832931</b> | DS3696N/NOBP    | DIP-8   | Multipoint RS-485/RS-422 trans./rec. ....              | \$2.45 | \$1.81 | \$1.35 |
| <b>891069</b> | DS36C278TM      | SOIC-8  | LP multipoint EIA-RS-485 trans. ....                   | 2.69   | 2.03   | 1.51   |
| <b>832966</b> | DS36C278TN      | DIP-8   | LP multipoint EIA-RS-485 trans. ....                   | 1.26   | 1.23   | 1.21   |
| <b>833029</b> | DS485M/NOBP     | SOIC-8  | LP RS-485/RS-422 multipoint trans. ....                | 2.39   | 1.76   | 1.37   |
| <b>833053</b> | DS485TM         | SOIC-8  | LP RS-485/RS-422 multipoint trans. ....                | 2.39   | 1.76   | 1.37   |
| <b>833088</b> | DS75176BM/NOBP  | SOIC-8  | Multipoint RS-485/RS-422 trans. ....                   | .78    | .71    | .65    |
| <b>891149</b> | DS75176BN       | DIP-8   | Multipoint RS-485/RS-422 trans. ....                   | 1.65   | 1.20   | .88    |
| <b>833176</b> | DS75176BTN      | DIP-8   | Multipoint RS-485/RS-422 trans. ....                   | 1.65   | 1.20   | .88    |
| <b>833299</b> | DS8922AM/NOBP   | SOIC-16 | 3-st. RS-422 quad diff. line drv./rec. pair ....       | 1.95   | 1.44   | 1.08   |
| <b>833328</b> | DS8922M         | SOIC-16 | 3-st. RS-422 quad diff. line drv./rec. pair ....       | 1.95   | 1.44   | 1.08   |
| <b>833344</b> | DS8923AM/NOBP   | SOIC-16 | 3-st. RS-422 quad diff. line drv./rec. pair ....       | 1.15   | .94    | .80    |
| <b>833361</b> | DS8923AN/NOBP   | DIP-16  | 3-st. RS-422 quad diff. line drv./rec. pair ....       | 2.39   | 1.77   | 1.31   |
| <b>892862</b> | DS92LV1212AMSA  | SSOP-28 | 16-40MHz 10-bit bus LVDS clock deserial w/ recov. .... | 7.99   | 7.49   | 7.37   |
| <b>892985</b> | DS92LV1224TMSA  | SSOP-28 | 30-66MHz 10-bit bus LVDS deserializer ....             | 7.79   | 7.59   | 7.37   |
| <b>833627</b> | DS96174CN/NOBP  | DIP-16  | RS-485/RS-422 quad diff. line drivers ....             | 3.55   | 2.71   | 2.09   |
| <b>833651</b> | DS96176CN/NOBP  | DIP-8   | RS-485/RS-422 diff. bus transceiver ....               | 1.65   | 1.26   | 1.15   |
| <b>833715</b> | DS9638CM        | SOIC-8  | RS-422 dual high-speed diff. line drv. ....            | 1.55   | 1.12   | .82    |

## RS-422/485 Drivers/Receivers












Package (see above)


| Part No.      | Mfr.  | Cross Ref.  | Pkg.   | Description   | 1      | 10     | 100         |
|---------------|---|---|--------|---|--------|--------|-------------|
| 299807        |  | LTC485CN8    | DIP-8  | RS-485 LP transceiver, 5V .....                             | \$1.35 | \$1.17 | \$ .91      |
| 276576        | MAX   | MAX490CPA    | DIP-8  | RS-485/422 LP transceiver, 12V .....                        | 2.25   | 2.03   | 1.83        |
| 276550        | MAX   | MAX491CPD    | DIP-14 | RS-485/422 LP transceiver, 12V .....                        | 2.65   | 2.25   | <b>1.69</b> |
| 311837        | MAX   | MAX1480BEPI  | DIP-28 | RS-422/423 data interface, 5V .....                         | 28.75  | 24.44  | 20.17       |
| 244195        |  | MAX1487CPA   | DIP-8  | RS-485/422 LP transceiver, 12V .....                        | 2.25   | 1.45   | 1.22        |
| 39571         |  | AM26LS30  | DIP-16 | RS-422/423 line driver, 5V .....                            | 2.39   | 2.05   | 1.76        |
| 39589         |  | AM26LS31CN  | DIP-16 | RS-422 quad diff line driver, 5V .....                      | .61    | .54    | .43         |
| 39600         |  | AM26LS32CN  | DIP-16 | RS-422/423 quad diff line receiver, 5V ...                  | .62    | .53    | .42         |
| 25232         |  | MC3486P      | DIP-16 | RS-422/423 quad diff line receiver, 5V <del>\$ .66</del>    | .59    | .502   | <b>.377</b> |
| 25259         |  | MC3487P      | DIP-16 | RS-422/423 quad line driver, 5V .....                       | .62    | .52    | .47         |
| 144039        | NSC   | DS3695N      | DIP-8  | RS-422/423 multipoint transceiver, 5V ...                   | 1.59   | 1.19   | .90         |
| 299671        | NSC   | DS8921N   | DIP-8  | RS-422 diff line driver/receiver pair, 5V <del>\$1.46</del> | .91    | .79    | <b>.60</b>  |
| 50956         | TI  | SN75175N     | DIP-16 | RS-422/423 quad diff line rec, 5V .....                     | .72    | .56    | .45         |
| 50964         |  | SN75176BN   | DIP-8  | RS-422 diff line bus transceiver, 5V .....                  | .65    | .55    | .45         |
| <b>235387</b> | NSC   | DS96172CN    | DIP-16 | RS-485/422 quad diff line driver, 5V ...                    | 2.95   | 2.75   | 2.50        |
| 235408        | NSC   | DS96176CN    | DIP-8  | RS-485/422 diff bus driver, 5V .....                        | 1.55   | 1.43   | 1.35        |



 Jameco Value Offering  Blue Part No. = Limited Quantity Available

## National Semiconductor Interface Series

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| Part No.      | Cross Ref.  | Pkg.    | Description                             | 1      | 10     | 100    |
|---------------|---|---------|---|--------|--------|--------|
| <b>832106</b> | DS14C88N/NOBP    | DIP-14  | Quad CMOS line driver .....             | \$1.25 | \$1.13 | \$1.03 |
| <b>832165</b> | DS14C89AN/NOBP   | DIP14   | Quad CMOS line receiver .....           | 1.25   | 1.12   | 1.03   |
| <b>832288</b> | DS26C31TM/NOBP   | SOIC-16 | CMOS quad 3-st. diff. line driver ..... | .85    | .70    | .59    |
| <b>832317</b> | DS26C31TM/NOBP   | DIP-16  | CMOS quad 3-st. diff. line driver ..... | 2.55   | 1.87   | 1.37   |
| <b>889962</b> | DS26C32ATM/NOBP  | SOIC-16 | Quad diff. line receiver .....          | 2.05   | 1.53   | 1.11   |
| <b>832341</b> | DS26C32ATM/NOBP  | DIP-16  | Quad differential line receiver .....   | 1.49   | 1.19   | 1.01   |
| <b>832376</b> | DS26LS31CM/NOBP  | SOIC-16 | Quad high-speed diff. line driver ..... | .79    | .66    | .57    |
| <b>832405</b> | DS26LS31CN/NOBP  | DIP-16  | Quad high-speed diff. line driver ..... | 1.09   | .92    | .78    |
| <b>832448</b> | DS26LS32A/NOBP   | SOIC-16 | Quad differential line receivers .....  | 1.69   | 1.27   | .93    |
| <b>832472</b> | DS26LS32A/NOBP   | DIP-16  | Quad differential line receivers .....  | 2.39   | 1.77   | 1.29   |
| <b>832510</b> | DS26LS32CM/NOBP  | SOIC-16 | Quad differential line receivers .....  | 1.49   | 1.09   | .80    |

 This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.


















 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

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## National Semiconductor Interface Series (Cont.)




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| Part No.      | Cross Ref.   | Pkg.    | Description                               | 1      | 10     | 100    |
|---------------|--|---------|---|--------|--------|--------|
| <b>832536</b> | DS26LS32CN/NOBP   | DIP-16  | Quad differential line receivers .....    | \$2.25 | \$1.66 | \$1.21 |
| <b>890218</b> | DS26LV31TM/NOBP   | SOIC-16 | 3V enhanced CMOS quad diff. line drv. ... | 1.85   | 1.37   | 1.00   |
| <b>832561</b> | DS26LV32ATM/NOBP  | SOIC-16 | 3V enhanced CMOS quad diff. line rcv. ... | 1.85   | 1.36   | 1.02   |
| <b>890349</b> | DS3486M/NOBP      | SOIC-16 | Quad RS-422, RS-423 line receiver .....   | 1.39   | 1.02   | .75    |
| <b>832595</b> | DS3486N/NOBP      | DIP-16  | Quad RS-422, RS-423 line receiver ...     | .99    | .90    | .83    |
| <b>832624</b> | DS3487M/NOBP      | SOIC-16 | Quad 3-st. line driver .....              | 1.69   | 1.23   | .89    |
| <b>832659</b> | DS3487N/NOBP      | DIP-16  | Quad 3-st. line driver .....              | 1.19   | 1.49   | .84    |
| <b>832712</b> | DS34C86TM/NOBP    | DIP-16  | Quad CMOS diff. line receiver .....       | 2.49   | 1.81   | 1.33   |
| <b>832747</b> | DS34C87TM/NOBP    | SOIC-16 | CMOS quad 3-st. diff line driver .....    | .92    | .84    | .66    |
| <b>832763</b> | DS34C87TN/NOBP    | DIP-16  | CMOS quad 3-st. diff. line driver .....   | 1.01   | .83    | .70    |
| <b>890710</b> | DS34LV86TM/NOBP   | SOIC-16 | 3V enhanced CMOS quad diff. line rcv. ... | 2.49   | 1.85   | 1.43   |
| <b>890752</b> | DS34LV87TM        | SOIC-16 | Enhanced CMOS quad diff. line drv. ...    | 2.49   | 1.85   | 1.43   |
| <b>833205</b> | DS8921AM/NOBP     | SOIC-8  | Diff. line driver & receiver pair .....   | 1.75   | 1.35   | 1.27   |
| <b>833230</b> | DS8921ATM/NOBP    | SOIC-8  | Diff. line driver & receiver pair .....   | .71    | .69    | .67    |
| <b>833264</b> | DS8921N/NOBP      | DIP-8   | Diff. line driver & receiver pair .....   | .91    | .83    | .64    |
| <b>833395</b> | DS89C21TM/NOBP    | SOIC-8  | Diff. CMOS line drv. & rcv. pair .....    | 1.55   | 1.17   | .85    |
| <b>833686</b> | DS9637ACM/NOBP    | SOIC-8  | Dual diff. line receiver .....            | 1.55   | 1.13   | .82    |

## Atmel Interface Series

**NEW**





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| Part No.      | Cross Ref.  | Pkg.    | Description                                    | 1      | 10     | 100    |
|---------------|---|---------|--|--------|--------|--------|
| <b>845476</b> | AT43301-SC     | SOIC-24 | 1UP/4DOWN stream USB hub controller .....      | \$1.69 | \$1.64 | \$1.59 |
| <b>763243</b> | AT43312A-SC    | LQFP-32 | 1UP/4DOWN stream self & bus USB hub cont. .... | 2.05   | 1.97   | 1.91   |
| <b>763260</b> | AT43USB326-AU  | LQFP-48 | Multimedia USB kbdr cont w/ embedded hub ...   | 2.89   | 2.37   | 2.32   |

## ON Semiconductor Interface Series






















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\* Minimum order 5 pieces

| Part No.      | Cross Ref.  | Pkg.    | Description                                 | 1         | 5         | 50   |
|---------------|---|---------|---|-----------|-----------|------|
| <b>870006</b> | MC1413BD   | SOIC-16 | Hi-volt, hi-cur dar transistor arrays ....  | * \$ .446 | * \$ .397 |      |
| <b>792386</b> | MC1413BPG  | PDIP-16 | Hi-volt, hi-cur dar transistor arrays ...   | * \$ .314 | * \$ .265 |      |
| <b>870065</b> | MC1413D    | SOIC-16 | Hi-volt, hi-cur dar transistor arrays ..... | .62       | .506      | .384 |
| <b>792407</b> | MC1413PG   | PDIP-16 | Hi-volt, hi-cur dar transistor arrays ..... | .86       | .81       | .77  |

## Interface Series

Package (see above)

| Part No.      | Mfr.  | Cross Ref.   | Pkg.    | Description                              | 1      | 10     | 100         |
|---------------|---|--|---------|--|--------|--------|-------------|
| <b>12239</b>  | ISL   | CA3161E     | DIP-16  | 5V, BCD 7-seg. decoder driver .....      | \$2.95 | \$2.65 | \$2.39      |
| <b>310439</b> | ON  | MC33152P    | DIP-8   | 20V, dual MOSFET driver .....            | 1.05   | .97    | .87         |
| 25216         | NSC   | MC3479P     | DIP-16  | 7.2-16.5V, stepper motor driver .....    | 3.79   | 3.22   | 2.55        |
| 24230         | NSC   | LM3914N     | DIP-18  | 25V, dot/bar display driver .....        | 2.39   | 2.05   | 1.94        |
| 300003        | NSC   | LM3914N-1   | DIP-18  | 25V, dot/bar display driver .....        | 1.65   | 1.54   | 1.38        |
| 246625        | NSC   | LM3914V     | PLCC-20 | 25V, dot/bar display driver .....        | 2.35   | 2.00   | 1.50        |
| 24256         | NSC   | LM3915N     | DIP-18  | 25V, dot/bar display driver .....        | 2.19   | 1.64   | 1.23        |
| 24272         | NSC   | LM3916N     | DIP-18  | 3-25V, dot/bar display driver .....      | 2.25   | 1.91   | <b>1.44</b> |
| 243379        |  | MM5453N     | DIP-40  | 3-10V, LCD driver .....                  | 2.69   | 2.44   | 2.10        |
| 314691        |  | ICL7136CPL  | DIP-40  | 15V, 3 1/2 digit LCD driver .....        | 3.65   | 3.20   | 2.90        |
| 313437        |  | ICM7218AUI  | DIP-28  | 5V, 8 digit LCD driver .....             | 4.25   | 4.05   | 3.85        |
| 312160        | MAX   | MAX219CNG   | DIP-24  | 5V, 8 digit LCD driver .....             | 8.95   | 6.95   | 4.65        |
| 313322        |  | ICM7228AUI  | DIP-28  | 5V, 8 digit LCD driver .....             | 3.95   | 3.55   | 3.19        |
| 241875        |  | FAN8082     | DIP-8   | 18V, bi-directional DC motor driver ...  | .65    | .50    | .40         |
| 241867        |  | FAN8200     | DIP-14  | 18V, bi-directional step motor driver .. | .69    | .67    | .64         |

 Jameco Value Offering  Blue Part No. = Limited Quantity Available



# Interface, Clock Chips & UARTs



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Page 1

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## Interface Series (Continued)

Package (see pg 27)

| Part No. | Mfr. | Cross Ref. | Pkg.    | Description                      | 1      | 10     | 100    |
|----------|------|------------|---------|----------------------------------|--------|--------|--------|
| 53663    | +    | 9368       | DIP-16  | 7V, 7-segment decoder driver     | \$3.99 | \$3.49 | \$3.20 |
| 70082    | VSH  | SI9978DW   | SOIC-24 | Configurable H-bridge driver     | 3.99   | 3.49   | 3.20   |
| 241824   | +    | MC14489BP  | DIP-20  | 5V, 7-segment LED display driver | 3.19   | 3.00   | 2.80   |
| 277940   | +    | SN75179BP  | DIP-8   | 5V, diff line driver/receiver    | .66    | .56    | .52    |
| 51027    | +    | SN75451AN  | DIP-8   | 7V, dual peripheral AND driver   | .34    | .31    | .23    |
| 277974   | +    | SN75183N   | DIP-14  | 5V, dual diff line driver        | .91    | .84    | .78    |
| 51131    | +    | SN75492P   | DIP-14  | 5V, HEX digit driver             | 3.45   | 3.00   | 2.85   |

♦ Jameco Value Offering   ♦ Blue Part No. = Limited Quantity Available

## Digital Interface ICs

Package (see pg 27)

| Part No. | Product No. | Pkg.   | Description                                | 1       | 10      | 50     |
|----------|-------------|--------|--|---------|---------|--------|
| 323969   | EDEFT609    | DIP-8  | Serial stepper motor controller            | \$11.99 | \$10.19 | \$7.72 |
| 323977   | EDEFT639/P  | DIP-8  | Servo controller                           | 8.95    | 8.55    | 7.75   |
| 323993   | EDEFT649    | DIP-8  | Five pin output controller                 | 8.95    | 8.55    | 7.65   |
| 171951   | EDE702      | DIP-18 | Serial LCD interface                       | 8.75    | 7.06    | 6.17   |
| 321710   | EDE707      | DIP-28 | Octal 7-segment LED display decoder        | 8.99    | 7.65    | 6.75   |
| 321728   | EDE747      | DIP-20 | 7-segment decoder/driver                   | 5.99    | 4.65    | 4.15   |
| 321701   | EDE1188     | DIP-28 | 8x8 matrix universal keypad encoder        | 8.89    | 7.65    | 6.30   |
| 171969   | EDE1144     | DIP-18 | Keypad encoder                             | 6.99    | 5.65    | 5.00   |
| 141532   | EDE1200     | DIP-18 | Unipolar stepper motor controller          | 8.29    | 6.90    | 5.90   |
| 157526   | EDE1204     | DIP-18 | Bipolar stepper motor controller           | 7.55    | 6.35    | 5.35   |
| 321736   | EDE2008     | DIP-18 | Pushbutton debouncer w/ 8-independent chan | 5.99    | 4.65    | 4.15   |
| 321744   | EDE2108A    | DIP-20 | One-of-eight latch single channel          | 5.99    | 5.09    | 4.15   |
| 321752   | EDE2108D    | DIP-20 | One-of-eight latch act/deact               | 5.99    | 5.09    | 3.82   |
| 321761   | EDE2208/P   | DIP-18 | 8-pushbutton momentary to toggle           | 5.45    | 4.25    | 3.75   |
| 324005   | EDE8744     | DIP-28 | 16-key serial keypad and 2x40 LCD driver   | 13.89   | 11.81   | 8.86   |

## 5000 Series & Clock Chips

Package (see pg 27)

\* Minimum order 10 pieces

| Part No. | Cross Ref. | Pkg.   | Description                     | 1      | 10     | 50     |
|----------|------------|--------|---------------------------------|--------|--------|--------|
| 32803    | TCM5089N   | DIP-16 | Touch tone generator            | \$5.25 | \$4.75 | \$4.05 |
| 26091    | MM5321N    | DIP-16 | TV camera synchronous generator | 4.75   | 4.31   | 3.91   |
| 26171    | MM5450N    | DIP-40 | LED display driver              | 2.79   | 2.60   | 2.30   |
| 86799    | LM555CM    | SOIC-8 | Timer                           | *      | .16    | .13    |
| 27422    | LM555CN**  | DIP-8  | Timer                           | .29    | .23    | .20    |
| 126797   | LMC555CN*  | DIP-8  | CMOS timer                      | .51    | .47    | .42    |
| 24328    | LM556N*    | DIP-14 | Dual timer                      | .82    | .60    | .45    |
| 25101    | MC146818   | DIP-24 | Real time clock with RAM        | 6.29   | 5.66   | 5.09   |
| 698496   | M48T86PC1  | DIP-24 | 5V PC real-time clock           | 5.05   | 4.89   | 4.69   |
| 10567    | AM9513APC  | DIP-40 | Real time clock                 | 39.95  | 33.96  | 25.47  |

\* 10 pcs. in Linear series IC cabinet kit, pg 31   \*\* 20 pcs. in Linear series IC cabinet kit, pg 31  
♦ Pull = Extra Savings   ♦ Blue Part No. = Limited Quantity Available



## Clock Chips

For more Cypress Clock Chips  
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| Part No. | Cross Ref.    | Pkg.    | Description   | 1      | 10     | 100    |
|----------|---------------|---------|---|--------|--------|--------|
| 861100   | CY7B9910-5SC  | SOIC-24 | 5V low skew buffer, 15-80MHz, 500ps, C-temp             | \$5.85 | \$5.30 | \$4.83 |
| 779000   | CY7B9910-5SI  | SOIC-24 | 5V low skew buffer, 15-80MHz, 500ps, I-temp             | 8.25   | 8.00   | 7.77   |
| 779018   | CY7B9910-7SC  | SOIC-24 | 5V low skew buffer, 15-80MHz, 750ps, C-temp             | 5.95   | 5.36   | 4.93   |
| 861134   | CY7B9911V-5JC | PLCC-32 | ROBOCLOCK™ hi-speed, LV prog skew buffer, 500ps, C-temp | 17.89  | 17.36  | 16.86  |
| 779026   | CY7B9911V-5JC | PLCC-32 | ROBOCLOCK™ hi-speed, LV prog skew buffer, 500ps, C-temp | 17.89  | 17.36  | 16.86  |
| 778963   | CY7B9911-2JC  | PLCC-32 | 5V prog skew buffer, 250ps, 15-80MHz, C-temp            | 16.29  | 14.66  | 12.99  |

|        |               |         |   |       |       |       |
|--------|---------------|---------|---|-------|-------|-------|
| 861054 | CY7B9911-5JC  | PLCC-32 | 5V prog skew buffer, 15-80MHz, C-temp                   | 9.95  | 9.04  | 8.02  |
| 778971 | CY7B9911-5JC  | PLCC-32 | 5V prog skew buffer, 500ps, 15-80MHz, I-temp            | 10.95 | 10.61 | 10.30 |
| 861071 | CY7B9911-7JC  | PLCC-32 | ROBOCLOCK™ LV prog skew buffer, 15-80MHz, 750ps, C-temp | 8.85  | 8.03  | 7.12  |
| 778998 | CY7B9911-7JC  | PLCC-32 | 5V prog skew buffer, 750ps, 15-80MHz, I-temp            | 9.89  | 8.92  | 7.91  |
| 861169 | CY7B9911V-2JC | PLCC-32 | ROBOCLOCK™ LV prog skew buffer, 250ps, C-temp           | 14.49 | 13.17 | 11.68 |
| 861193 | CY7B9911V-5JC | PLCC-32 | ROBOCLOCK™ LV prog skew buffer, 500ps, C-temp           | 5.99  | 5.79  | 5.62  |
| 861222 | CY7B9911V-5JC | PLCC-32 | ROBOCLOCK™ LV prog skew buffer, I-temp                  | 8.95  | 8.68  | 8.43  |
| 779034 | CY7B9911V-5JC | PLCC-32 | ROBOCLOCK™ LV prog skew buffer, 500ps, C-temp           | 6.25  | 5.69  | 5.17  |
| 779042 | CY7B9911V-5JC | PLCC-32 | ROBOCLOCK™ LV prog skew buffer, I-temp                  | 14.65 | 11.71 | 9.88  |
| 861257 | CY7B9911V-7JC | PLCC-32 | ROBOCLOCK™ LV programmable skew buffer, 750ps, C-temp   | 6.69  | 6.06  | 5.51  |
| 779051 | CY7B992-5JC   | PLCC-32 | 5V prog skew clock buffer, 500ps, C-temp                | 5.55  | 5.02  | 4.57  |
| 779069 | CY7B992-7JC   | PLCC-32 | 5V prog skew clock buffer, 750ps, I-temp                | 16.15 | 15.68 | 15.23 |

♦ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♦ RoHS compliant product   ♦ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.   Details on page 1.



## Clock Chips (Continued)

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| Part No. | Cross Ref.    | Pkg.     | Description  | 1       | 10      | 100     |
|----------|---------------|----------|--|---------|---------|---------|
| 779392   | CY7B993V-5AC  | TQFP-100 | ROBOCLOCK™ hi-speed multiphase PLL buffer, 500ps, C-temp | \$31.29 | \$30.39 | \$29.52 |
| 779405   | CY7B993V-5AI  | TQFP-100 | ROBOCLOCK™ hi-speed multiphase PLL buffer, 500ps, I-temp | 43.65   | 42.43   | 41.21   |
| 779413   | CY7B9945V-2AC | TQFP-52  | ROBOCLOCK™ hi-speed multiphase PLL buffer, 250ps, C-temp | 29.89   | 29.02   | 28.19   |
| 779421   | CY7B994V-2B8  | TBGA-100 | ROBOCLOCK™ hi-speed multiphase PLL buffer, 250ps, I-temp | 66.75   | 64.89   | 63.04   |
| 779430   | CY7B994V-5B8C | TBGA-100 | ROBOCLOCK™ hi-speed multiphase PLL buffer, 500ps, C-temp | 47.25   | 45.90   | 44.59   |



## Clock Chips

NEW

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| Part No. | Cross Ref.   | Pkg.     | Description   | 1      | 10     | 100    |
|----------|--------------|----------|---|--------|--------|--------|
| 780609   | DS1337C      | SOIC-16  | I2C serial real time, I-temp                              | \$2.65 | \$2.42 | \$2.21 |
| 780617   | DS1337U      | uSOP-8   | I2C serial real time, I-temp                              | 1.89   | 1.72   | 1.57   |
| 780625   | DS1338U-33   | uSOP-8   | I2C RTC with 56-byte NV RAM, I-temp                       | 3.15   | 2.58   | 2.00   |
| 780633   | DS1338Z-33   | SOIC-8   | I2C RTC with 56-byte NV RAM, I-temp                       | 3.15   | 2.58   | 2.00   |
| 780641   | DS1339C-33   | SOIC-16  | I2C serial real time, I-temp                              | 3.25   | 2.97   | 2.71   |
| 780650   | DS1339U-33   | uSOP-8   | I2C serial real time, I-temp                              | 3.15   | 2.58   | 2.00   |
| 780668   | DS1340U-33   | uSOP-8   | I2C RTC with trickle charger, I-temp                      | 3.15   | 2.58   | 2.00   |
| 780676   | DS1340Z-33   | SOIC-8   | I2C RTC with trickle charger, I-temp                      | 3.15   | 2.58   | 2.00   |
| 780713   | DS1388Z-33   | SOIC-8   | RTC/Supervisor w/ trickle charge & 512-bytes, I-temp      | 3.59   | 3.26   | 2.97   |
| 780721   | DS1390U-33   | uSOP-10  | Low-voltage SPI/3-wire RTC w/ trickle charge, I-temp      | 2.69   | 2.44   | 2.23   |
| 780730   | DS1392U-33   | uSOP-10  | Low-voltage SPI/3-wire RTC w/ trickle charge, I-temp      | 2.69   | 2.44   | 2.23   |
| 780748   | DS14287      | DIP-24   | 5V real time clock w/ NV RAM control, C-temp              | 8.75   | 8.09   | 7.32   |
| 780764   | DS1501WE     | TSOP-28  | Y2K compliant watchdog real time, C-temp                  | 11.69  | 8.64   | 7.86   |
| 780772   | DS1501WEN    | TSOP-28  | Y2K compliant watchdog real time, I-temp                  | 12.29  | 10.27  | 9.03   |
| 780781   | DS1501WS     | SOIC-28  | Y2K compliant watchdog real time, C-temp                  | 11.15  | 8.53   | 7.13   |
| 780799   | DS1501YS     | SOIC-28  | 5V Y2K compliant watchdog real time, C-temp               | 8.65   | 7.84   | 7.13   |
| 780801   | DS1501YSN    | SOIC-28  | 5V Y2K compliant watchdog real time, I-temp               | 9.95   | 9.03   | 8.22   |
| 780810   | DS1511Y      | DIP-28   | 5V Y2K compliant watchdog real time, C-temp               | 16.39  | 14.92  | 13.56  |
| 780828   | DS1553WP-150 | †        | 64k NV, Y2K compliant time keeping RAM, C-temp            | 20.25  | 18.41  | 16.74  |
| 780836   | DS1554WP-120 | EMOD-32  | 256k NV, Y2K compliant time keeping RAM, C-temp           | 23.39  | 21.25  | 19.02  |
| 780844   | DS1556W-120  | †        | 1M NV, Y2K compliant time keeping RAM, C-temp             | 35.85  | 32.60  | 29.64  |
| 780852   | DS1557WP-120 | †        | 4M NV, Y2K compliant time keeping RAM, C-temp             | 94.85  | 86.22  | 78.38  |
| 781054   | DS1685E-3    | TSSOP-24 | 3V real time, C-temp                                      | 6.55   | 5.01   | 4.19   |
| 781062   | DS1685E-5    | TSSOP-24 | 5V real time, C-temp                                      | 6.55   | 5.01   | 4.19   |
| 781071   | DS1685EN-3   | TSSOP-24 | 3V real time, I-temp                                      | 5.85   | 5.30   | 4.83   |
| 781089   | DS1685Q-5    | PLCC-28  | 5V real time, C-temp                                      | 5.39   | 4.89   | 4.45   |
| 781097   | DS1685S-3    | SOIC-24  | 3V real time, C-temp                                      | 6.55   | 4.99   | 4.17   |
| 781100   | DS1685S-5    | SOIC-24  | 5V real time, C-temp                                      | 6.19   | 4.74   | 4.17   |
| 781118   | DS1687-3IND  | DIP-24   | 3V real time, I-temp                                      | 9.59   | 8.73   | 7.94   |
| 781126   | DS1687-5     | DIP-24   | 5V real time, C-temp                                      | 9.09   | 6.94   | 6.10   |
| 781134   | DS1687-5     | DIP-24   | 5V real time, C-temp                                      | 9.09   | 6.94   | 6.10   |
| 781142   | DS1687-5IND  | DIP-24   | 5V real time, I-temp                                      | 9.59   | 8.73   | 7.94   |
| 781151   | DS1688S      | SOIC-28  | 3V-5V serialized real time w/ NV RAM, C-temp              | 7.39   | 6.71   | 6.10   |
| 781169   | DS1689SN     | SOIC-28  | 3V-5V serialized real time w/ NV RAM, I-temp              | 10.95  | 8.36   | 7.00   |
| 781177   | DS1693C      | DIP-28   | 3V-5V serialized real time w/ NV RAM, C-temp              | 19.25  | 14.66  | 12.88  |
| 781329   | DS1742W-120  | DIP-24   | 3.3V Y2KC NV time keeping RAM, C-temp                     | 27.79  | 18.89  | 16.60  |
| 781337   | DS1743-100   | DIP-28   | 5V Y2K compliant NV time keeping RAM, C-temp              | 25.85  | 19.74  | 16.52  |
| 781345   | DS1743W-120  | DIP-28   | 3.3V Y2K compliant NV time keeping RAM (8k x 8), C-temp   | 27.25  | 20.78  | 17.40  |
| 781361   | DS1744W-120  | DIP-28   | 3.3V Y2K compliant NV time keeping RAM (32k x 8), C-temp  | 22.99  | 20.90  | 19.00  |
| 781370   | DS1746-70C   | DIP-32   | 5V Y2K compliant NV time keeping RAM (128k x 8), C-temp   | 42.05  | 32.07  | 26.83  |
| 781388   | DS1747WP-120 | †        | 3.3V Y2K compliant NV time keeping RAM (512k x 8), C-temp | 35.45  | 32.20  | 29.28  |

† POWERCAP-34

## UARTs

Package (see pg 27)












| Part No. | Cross Ref. | Pkg.     | Description                      | 1      | 10     | 100    |
|----------|------------|----------|----------------------------------|--------|--------|--------|
| 43158    | 6402       | DIP-40   | 5V CMOS                          | \$6.25 | \$5.35 | \$4.99 |
| 27570    | NS16C450N  | DIP-40   | Async. communication element, 5V | 2.39   | 1.93   | 1.53   |
| 288770   | TL16C452FN | PLCC-68  | Async. communication element, 5V | 4.45   | 3.59   | 2.85   |
| 27596    | NS16550AN  | † DIP-40 | Async. communication element, 5V | 4.45   | 3.78   | 2.84   |
| 288809   | TL16C550CN | † DIP-40 | 1-channel w/ 16-byte FIFO, 5V    | 2.79   | 2.27   | 1.79   |
| 288841   | TL16C554FN | PLCC-68  | 4-channel w/ 16-byte FIFO, 5V    | 9.89   | 9.39   | 8.93   |

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# Encoders/Decoders, Motor Controllers, Converters & Voltage Regulators

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

| TSSOP  | TQFP  | TO-92   | TO-220  | TO-263  | DIP   | SOIC & SOP  | SOT-23   | SOT-223   | MW  | PLCC  |
|--|---|---|---|---|---|---|--|---|---|---|
|  |  |  |  |  |  |  |  |  |  |  |






## Manufacturer Cross Reference Table

Jameco Value Offering 

| Manufacturer   | Code | Manufacturer            | Code | Manufacturer      | Code | Manufacturer           | Code | Manufacturer      | Code |
|----------------|------|-------------------------|------|-------------------|------|------------------------|------|-------------------|------|
| Analog Devices | ADI  | Fairchild Semiconductor | FSC  | Maxim Corporation | MAX  | National Semiconductor | NSC  | ST Micro          | ST   |
| Anachip        | ANA  | Linear Technology       | LTC  | Microchip         | MCH  | ON Semi                | ON   | Texas Instruments | TI   |





## Encoders/Decoders

Package (see above)

| Part No. | Cross Ref.  | Pkg.   | Description                        | 1      | 10     | 100    |
|----------|---|--------|------------------------------------|--------|--------|--------|
| 123730   | HT12E      | DIP-18 | Encoder, 2.4-12V .....             | \$1.69 | \$1.49 | \$1.29 |
| 123748   | HT12D      | DIP-18 | Decoder, 2.4-12V .....             | 1.69   | 1.49   | 1.29   |
| 243408   | TP3054     | DIP-16 | U-law PCM CODEC & filter, 5V ..... | 2.45   | 1.92   | 1.73   |
| 296702   | MC145026P  | DIP-16 | Encoder, 2.5-18V .....             | 1.45   | .97    | .94    |
| 296711   | MC145027P  | DIP-16 | Decoder, 4.5-18V .....             | 2.95   | 2.65   | 2.40   |

## Stepper Motor Drivers/Controllers

Package (see above)

| Part No. | Cross Ref.   | Pkg.   | Description                        | 1                      | 10     | 100    |
|----------|--|--------|------------------------------------|------------------------|--------|--------|
| 288067   | L297/1  | DIP-20 | Stepper motor controller, 5V ..... | \$5.19                 | \$4.99 | \$4.46 |
| 243403   | L298N   | MW-15  | Dual full-bridge driver, 46V ..... | 3.05                   | 2.65   | 2.45   |
| 288091   | L6202   | DIP-18 | DMOS full bridge driver, 48V ..... | <del>\$7.15</del> 5.65 | 4.80   | 3.84   |
| 288104   | L6203   | MW-11  | DMOS full bridge driver, 48V ..... | 9.05                   | 8.75   | 8.25   |

## KAE Servo and Stepper Motor Controllers

Controllers operate from standard 8-bit serial interface (RS232 or RS485). Using RS485, any mix of up to 32 controllers may be operated from a single serial port. Complete documentation.

### 146472: PIC-SERVO Motion Control Chipset for DC Motors

- PIC servo control for DC motors with digital encoders
- 32-bit position, velocity, and acceleration resolution
- PWM and direction outputs connect to servo amplifier
- Two chip set (PIC-SERVO V.4, 28-pin and PIC-ENC V.1, 18-pin)




175901

### 175901: PIC-STEP Motion Control Chip for Stepper Motors

- Step rates up to 50,000 steps/sec. – suitable for use with microstepping drivers
- Trapezoidal positioning and profiled velocity modes
- Programmable current limits automatically switch between holding and running currents
- Programmable accelerations and minimum step rates














### 323934: PIC-SERVO SC Servo Motion Control I.C.

- For DC motors (brush or brushless w/ incremental encoder feedback)
- Serial interface connects to RS232/485/422 communication port
- Position control, velocity control, trapezoidal profiling, plus step & direction inputs


| Part No. | Description  | Package               | 1       | 10      | 50      |
|----------|--|-----------------------|---------|---------|---------|
| 146472   | Motion control chipset for DC motors  | DIP-28/18, 0.3" ..... | \$31.35 | \$28.40 | \$27.05 |
| 175901   | Motion control chip for stepper motors   | DIP-28, 0.3" .....    | 25.45   | 22.75   | 20.55   |
| 323934   | SC servo motion control IC   | DIP-28, 0.3" .....    | 29.95   | 27.50   | 25.75   |


## A/D & D/A Converters

Package (see above)

| Part No. | Cross Ref.   | Pkg.   | Description                                 | 1      | 10     | 100    |
|----------|--|--------|---|--------|--------|--------|
| 43748    | 7106CPL     | DIP-40 | A/D, 3 1/2-digit LCD/LED display, 9V .....  | \$3.25 | \$2.91 | \$2.41 |
| 43756    | 7107CPL     | DIP-40 | A/D, 3 1/2-digit LCD/LED display, ±5V ..... | 2.95   | 2.40   | 2.05   |
| 290263   | ICL7135CPI  | DIP-28 | A/D, 4 1/2-digit BCD output, 5V .....       | 5.55   | 4.72   | 3.54   |
| 10145    | ADC0803LCN  | DIP-20 | A/D, 8-bit, 5V, 9.1Ksps, 1-channel .....    | 4.29   | 3.10   | 2.69   |
| 10153    | ADC0804LCN  | DIP-20 | A/D, 8-bit, 5V, 9.1Ksps, 1-channel .....    | 1.99   | 1.75   | 1.39   |
| 10170    | ADC0808CCN  | DIP-28 | A/D, 8-bit, 5V, 9.1Ksps, 8-channel .....    | 3.65   | 3.55   | 3.32   |
| 10188    | ADC0809CCN  | DIP-28 | A/D, 8-bit, 5V, 9.1Ksps, 8-channel .....    | 2.55   | 2.23   | 1.99   |
| 10225    | ADC0820CCN  | DIP-20 | A/D, 8-bit, 5V, 1.5µs .....                 | 2.15   | 1.99   | 1.81   |
| 116100   | ADC0831CCN  | DIP-8  | A/D, 8-bit, 5V, 32µs .....                  | 1.79   | 1.63   | 1.48   |
| 296690   | AD7226KN    | DIP-20 | D/A, 8-bit, 2-12.5V, 4µs, 4-channel .....   | 18.19  | 17.17  | 15.95  |
| 277165   | MAX186BCPP  | DIP-20 | A/D, 12-bit, 5V, 6µs, 8-channel .....       | 24.65  | 23.94  | 23.23  |
| 277069   | MAX197BCNI  | DIP-28 | A/D, 12-bit, 5V, 10Ksps, 8-channel .....    | 24.89  | 22.90  | 20.95  |
| 277131   | MAX110BCE   | DIP-16 | A/D, 14-bit, 5V, 50sps, 2-channel .....     | 11.69  | 9.21   | 8.29   |













 This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

 RoHS compliant product

 This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

## A/D & D/A Converters (Continued)

Package (see above)















| Part No. | Cross Ref.  | Pkg.    | Description                                 | 1                        | 10      | 100     |
|----------|---|---------|---|--------------------------|---------|---------|
| 287363   | AD7714AN     | DIP-24  | A/D, 24-bit, 5V, 1-2.5MHz, 6-channel ...    | \$17.75                  | \$17.65 | \$17.50 |
| 115158   | AD558JN      | DIP-16  | D/A, 8-bit, 5-15V, 1-5-3µs, 1-channel ..... | 12.59                    | 11.99   | 11.29   |
| 14904    | DAC0800LCN   | DIP-16  | D/A, 8-bit, 4.5-18V, 150ns .....            | 1.49                     | 1.12    | .83     |
| 14947    | DAC0808LCN   | DIP-16  | D/A, 8-bit, 4.5-18V, 150ns .....            | 1.43                     | 1.18    | .75     |
| 14963    | DAC0830LCN   | DIP-20  | D/A, 8-bit, 5-15V, 1µs .....                | 4.79                     | 4.39    | 3.99    |
| 128186   | DAC0832LCN   | DIP-20  | D/A, 8-bit, 5-15V, 1µs .....                | 2.59                     | 1.98    | 1.53    |
| 289861   | TLCS5628CDW  | SOIC-16 | D/A, 8-bit, 5V, 1MHz, 8-channel .....       | 4.75                     | 4.29    | 4.15    |
| 290976   | TLV5628CN    | DIP-16  | D/A, 8-bit, 3V, 1MHz, 8-channel .....       | 4.69                     | 3.79    | 2.99    |
| 290052   | TLV7524CN    | DIP-16  | D/A, 8-bit, 5-15V, 100ns .....              | 2.75                     | 2.34    | 1.75    |
| 239425   | TLCS5615     | DIP-8   | D/A, 10-bit, 5V, 12µs, 1-channel .....      | 3.49                     | 3.20    | 3.13    |
| 287347   | AD767JN      | DIP-24  | D/A, 12-bit, 12-15V, 4µs, 1-channel .....   | 18.75                    | 18.65   | 18.50   |
| 239433   | DAC712       | DIP-28  | D/A, 16-bit, 12-15V, 6µs .....              | <del>\$20.05</del> 18.35 | 18.11   | 17.91   |



## Low Drop-Out Volt. Reg.


















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\* Minimum order 5 pieces

| Part No. | Cross Ref.   | Pkg/Pins | Description  | 1      | 5      | 50     |
|----------|--|----------|--|--------|--------|--------|
| 700461   | TPS78601DCQ     | SOT-223  | Ultralow-noise, fast, RF, 1.5A LDO linear reg. ...   | \$2.95 | \$2.80 | \$2.60 |
| 700470   | TPS78601KTTT    | TO-263/5 | Ultralow-noise, fast, RF, 1.5A LDO linear reg. ...   | 3.49   | 3.60   | 3.25   |
| 700488   | TPS78625DCQ   | SOT-223  | Ultralow-noise, high-PSRR, 1.5A LDO linear reg. ...  | 2.69   | 2.62   | 2.54   |
| 700496   | TPS78625KTTT  | TO-263/5 | Ultralow-noise, high-PSRR, 1.5A LDO linear reg. ...  | 3.19   | 3.10   | 3.01   |
| 700509   | TPS78633DCQ   | SOT-223  | Ultralow-noise, high-PSRR, 1.5A LDO linear reg. ...  | 2.69   | 2.62   | 2.54   |
| 700517   | TPS79201DBVT  | SOT-23   | Ultralow-noise, high-PSRR, 100mA LDO linear reg. ... | .79    | .77    | .75    |
| 700525   | TPS79318DBVR  | SOT-23   | Ultralow-noise, high-PSRR, 200mA LDO linear reg. ... | *      | .437   | .424   |
| 700533   | TPS79501DCQ   | SOT-223  | Ultralow-noise, high-PSRR, 500mA LDO linear reg. ... | 2.09   | 2.03   | 1.98   |
| 700541   | TPS79518DCQ   | SOT-223  | Ultralow-noise, high-PSRR, 500mA LDO linear reg. ... | 2.09   | 2.03   | 1.98   |
| 700550   | TPS79525DCQ   | SOT-223  | Ultralow-noise, high-PSRR, 500mA LDO linear reg. ... | 2.09   | 2.03   | 1.98   |
| 700568   | TPS79533DCQ   | SOT-223  | Ultralow-noise, high-PSRR, 500mA LDO linear reg. ... | 2.09   | 2.03   | 1.98   |
| 700576   | TPS79601DCQ   | SOT-223  | Ultralow-noise, high-PSRR, 1A LDO linear reg. ...    | 2.19   | 2.13   | 2.07   |
| 700584   | TPS79601KTTT  | TO-263/5 | Ultralow-noise, high-PSRR, 1A LDO linear reg. ...    | 2.59   | 2.52   | 2.44   |
| 700592   | TPS79633DCQ   | SOT-223  | Ultralow-noise, high-PSRR, 1A LDO linear reg. ...    | 2.19   | 2.13   | 2.07   |

## Low Drop-Out Voltage Regulators

Package (see above)

| Part No. | Mfr. | Cross Ref.  | Pkg/Pins  | Description                               | 1      | 10     | 100    |
|----------|------|---|-----------|---|--------|--------|--------|
| 299743   | +    | LM1084IT-ADJ       | TO-220    | 5A low drop out adj. pos. volt. reg. ...  | \$1.99 | \$1.52 | \$1.13 |
| 299735   | +    | LM1084IT-3.3       | TO-220    | 5A low drop out 3.3V pos. volt. reg. ...  | 2.95   | 2.51   | 1.88   |
| 282757   | +    | LT1085CT           | TO-220    | 3A low drop pos volt reg. adj./fixed ..   | 1.34   | 1.21   | .91    |
| 302455   | +    | LM1085IT-ADJ       | TO-220    | 3A low drop out adj. pos. volt. reg. ...  | 2.49   | 1.85   | 1.39   |
| 192305   | +    | LM1086CT-3.3       | TO-220/3  | 1.5A low dropout positive reg. (3.3V) ... | 1.09   | .81    | .60    |
| 192313   | +    | LM1086CT-5.0       | TO-220/3  | 1.5A low dropout positive reg. (5V) ...   | 1.49   | 1.27   | .95    |
| 251782   | +    | LM1117MPX-ADJ      | SOT-223/3 | 800mA low drop out linear regulator ...   | .46    | .44    | .396   |
| 242114   | +    | LM1117T-3.3        | TO-220/3  | 800mA, 3.3V, LDO voltage reg. ...         | .66    | .63    | .57    |
| 243539   | +    | LM1117T-ADJ        | TO-220/3  | 800mA, adj. LDO voltage reg. ...          | 1.27   | 1.08   | .81    |
| 314326   | +    | ANA AP1184KSL      | TO-263/5  | 4A ultra LDO adj. reg. ...                | 5.29   | 3.69   | 3.29   |
| 244152   | +    | LT1587CT-3.3       | TO-220/3  | 3A, 3.3V, LDO voltage reg. ...            | 1.55   | 1.18   | .89    |
| 297810   | +    | NSC LM2937ET-5.0   | TO-220    | 5V 500mA LDO regulator .....              | 1.22   | 1.12   | 1.02   |
| 192495   | +    | LM2940CT-12        | TO-220/3  | 12V LDO reg. (max. 45Vin) .....           | .85    | .72    | .542   |
| 107182   | +    | LM2940CT-5         | TO-220/3  | 5V LDO reg. (max. 45Vin) .....            | 1.39   | 1.05   | .77    |
| 121064   | +    | LM2941CT           | TO-220/5  | 1A LDO adjustable reg. (45Vin) .....      | .99    | .88    | .76    |
| 693804   | +    | NSC LM2941CT-LB03  | TO-220/5  | 1A LDO adjustable reg. (45Vin) .....      | .99    | .88    | .71    |
| 266757   | +    | LP2950CZ-5.0       | TO-92     | 100mA low pwr. LDO volt. reg. ...         | .80    | .59    | .29    |
| 192524   | +    | LM3940IT-3.3       | TO-220/3  | 1A LDO for 5V to 3.3V .....               | 1.69   | 1.28   | .95    |

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## ON Semiconductor® Voltage Regulators

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| Part No. | Cross Ref.    | Pkg/Pins | Description                        | * Minimum order 5 pieces |        |        |
|----------|---------------|----------|------------------------------------|--------------------------|--------|--------|
|          |               |          |                                    | 1                        | 5      | 50     |
| 875991   | MC7805ABD2T   | D2PAK    | 5V, 1A pos. volt. reg., I-temp     | \$.53                    | \$.481 | \$.438 |
| 876037   | MC7805ACD2TG  | D2PAK    | 5V, 1A pos. volt. reg., C-temp     | .78                      | .71    | .65    |
| 797267   | MC7805ACTG    | D2PAK    | 5V, 1A pos. volt. reg., C-temp     | *                        | .375   | .348   |
| 876070   | MC7805BD2T    | D2PAK    | 5V, 1A pos. volt. reg., I-temp     | .95                      | .81    | .63    |
| 876125   | MC7805BTG     | D2PAK    | 5V, 1A pos. volt. reg., I-temp     | *                        | .255   | .236   |
| 797283   | MC7805CD2TG   | D2PAK    | 5V, 1A pos. volt. reg., C-temp     | *                        | .342   | .293   |
| 876205   | MC7805CD2TR4G | D2PAK    | 5V, 1A pos. volt. reg., C-temp     | *                        | .347   | .321   |
| 876248   | MC7805CTG     | D2PAK    | 5V, 1A pos. volt. reg., C-temp     | *                        | .272   | .256   |
| 797304   | MC7806ACT     | TO-220/3 | 6V, 1A pos. volt. reg., C-temp     | *                        | .437   | .323   |
| 797347   | MC7806BTG     | TO-220/3 | 6V, 1A pos. volt. reg., I-temp     | *                        | .253   | .216   |
| 876264   | MC7806CT      | TO-220/3 | 6V, 1A pos. volt. reg., C-temp     | *                        | .275   | .225   |
| 876281   | MC7808ACT     | TO-220/3 | 8V, 1A pos. volt. reg., C-temp     | *                        | .433   | .392   |
| 876310   | MC7808BT      | TO-220/3 | 8V, 1A pos. volt. reg., I-temp     | *                        | .437   | .392   |
| 797363   | MC7808CD2T    | D2PAK    | 8V, 1A pos. volt. reg., C-temp     | *                        | .372   | .338   |
| 797380   | MC7808CTG     | TO-220/3 | 8V, 1A pos. volt. reg., C-temp     | *                        | .268   | .248   |
| 876352   | MC7809CT      | TO-220/3 | 9V, 1A pos. volt. reg., C-temp     | *                        | .411   | .372   |
| 797419   | MC7812ACD2TG  | D2PAK    | 12V, 1A pos. volt. reg., C-temp    | *                        | .36    | .328   |
| 797435   | MC7812ACTG    | TO-220/3 | 12V, 1A pos. volt. reg., C-temp    | *                        | .254   | .235   |
| 876395   | MC7812BT      | TO-220/3 | 12V, 1A pos. volt. reg., I-temp    | *                        | .433   | .393   |
| 876408   | MC7812CD2T    | D2PAK    | 12V, 1A pos. volt. reg., C-temp    | .87                      | .70    | .534   |
| 876441   | MC7812CTG     | TO-220/3 | 12V, 1A pos. volt. reg., C-temp    | *                        | .287   | .267   |
| 876467   | MC7815ACD2T   | D2PAK    | 15V, 1A pos. volt. reg., C-temp    | *                        | .415   | .378   |
| 797451   | MC7815ACTG    | TO-220/3 | 15V, 1A pos. volt. reg., C-temp    | *                        | .255   | .236   |
| 876504   | MC7815BT      | TO-220/3 | 15V, 1A pos. volt. reg., I-temp    | *                        | .387   | .293   |
| 876547   | MC7815CTG     | TO-220/3 | 15V, 1A pos. volt. reg., C-temp    | *                        | .291   | .254   |
| 876563   | MC7818CT      | TO-220/3 | 18V, 1A pos. volt. reg., C-temp    | *                        | .349   | .284   |
| 797478   | MC7824ACT     | TO-220/3 | 24V, 1A pos. volt. reg., C-temp    | *                        | .437   | .392   |
| 797494   | MC7824BT      | TO-220/3 | 24V, 1A pos. volt. reg., I-temp    | *                        | .386   | .293   |
| 876580   | MC7824CT      | TO-220/3 | 24V, 1A pos. volt. reg., C-temp    | *                        | .228   | .212   |
| 876601   | MC78L05ABD    | SOIC-8   | 5V, 100mA pos. volt. reg., I-temp  | *                        | .388   | .314   |
| 876643   | MC78L05ABP    | TO-92/3  | 5V, 100mA pos. volt. reg., I-temp  | *                        | .369   | .333   |
| 797507   | MC78L05ACDG   | SOIC-8   | 5V, 100mA pos. volt. reg., C-temp  | *                        | .369   | .333   |
| 876715   | MC78L05ACP    | TO-92/3  | 5V, 100mA pos. volt. reg., C-temp  | *                        | .33    | .235   |
| 876758   | MC78L08ACD    | SOIC-8   | 8V, 100mA pos. volt. reg., C-temp  | *                        | .369   | .28    |
| 876791   | MC78L08ACPG   | TO-92/3  | 8V, 100mA pos. volt. reg., C-temp  | *                        | .317   | .23    |
| 876811   | MC78L09ACD    | SOIC-8   | 9V, 100mA pos. volt. reg., C-temp  | *                        | .129   | .126   |
| 797515   | MC78L12ABDG   | SOIC-8   | 12V, 100mA pos. volt. reg., I-temp | *                        | .39    | .353   |
| 876854   | MC78L12ACD    | SOIC-8   | 12V, 100mA pos. volt. reg., C-temp | *                        | .369   | .28    |
| 876897   | MC78L12ACP    | TO-92/3  | 12V, 100mA pos. volt. reg., C-temp | *                        | .317   | .23    |
| 797558   | MC78L15ABDG   | SOIC-8   | 15V, 100mA pos. volt. reg., I-temp | *                        | .15    | .13    |
| 876918   | MC78L15ACD    | SOIC-8   | 15V, 100mA pos. volt. reg., C-temp | *                        | .34    | .304   |
| 876942   | MC78L15ACP    | TO-92/3  | 15V, 100mA pos. volt. reg., C-temp | *                        | .223   | .162   |
| 876969   | MC78M05BT     | TO-220/3 | 5V, 500mA pos. volt. reg., I-temp  | .59                      | .442   | .334   |
| 797566   | MC78M05CTG    | TO-220/3 | 5V, 500mA pos. volt. reg., C-temp  | .53                      | .498   | .39    |
| 797582   | MC78M06CT     | TO-220/3 | 6V, 500mA pos. volt. reg., C-temp  | *                        | .329   | .25    |
| 877005   | MC78M08CT     | TO-220/3 | 8V, 500mA pos. volt. reg., C-temp  | .53                      | .446   | .323   |
| 797603   | MC78M12ACT    | TO-220/3 | 12V, 500mA pos. volt. reg., C-temp | *                        | .256   | .249   |
| 797620   | MC78M12BT     | TO-220/3 | 12V, 500mA pos. volt. reg., I-temp | .59                      | .442   | .334   |
| 797646   | MC78M12CTG    | TO-220/3 | 12V, 500mA pos. volt. reg., C-temp | *                        | .208   | .202   |
| 797697   | MC78M15BTG    | TO-220/3 | 15V, 500mA pos. volt. reg., I-temp | .59                      | .541   | .49    |
| 797718   | MC78M15CTG    | TO-220/3 | 15V, 500mA pos. volt. reg., C-temp | *                        | .301   | .265   |
| 797734   | MC78M18CT     | TO-220/3 | 18V, 500mA pos. volt. reg., C-temp | *                        | .238   | .195   |
| 797751   | MC78M20CTG    | TO-220/3 | 20V, 500mA pos. volt. reg., C-temp | *                        | .227   | .193   |
| 877064   | MC78M24CT     | TO-220/3 | 24V, 500mA pos. volt. reg., C-temp | .53                      | .321   | .278   |
| 797777   | MC7905.2CTG   | TO-220/3 | -5.2V, 1A neg. volt. reg., C-temp  | .55                      | .498   | .453   |
| 797793   | MC7905ACD2TG  | D2PAK    | -5V, 1A neg. volt. reg., C-temp    | *                        | .362   | .328   |
| 797814   | MC7905ACTG    | TO-220/3 | -5V, 1A neg. volt. reg., C-temp    | *                        | .433   | .392   |
| 877136   | MC7905BT      | TO-220/3 | -5V, 1A neg. volt. reg., I-temp    | *                        | .252   | .229   |
| 877179   | MC7905CTG     | TO-220/3 | -5V, 1A neg. volt. reg., C-temp    | *                        | .375   | .307   |
| 877208   | MC7906CT      | TO-220/3 | -6V, 1A neg. volt. reg., C-temp    | *                        | .329   | .25    |
| 877216   | MC7908CT      | TO-220/3 | -8V, 1A neg. volt. reg., C-temp    | *                        | .338   | .25    |
| 797831   | MC7912ACT     | TO-220/3 | -12V, 1A neg. volt. reg., C-temp   | *                        | .386   | .293   |
| 797857   | MC7912BTG     | TO-220/3 | -12V, 1A neg. volt. reg., I-temp   | *                        | .433   | .392   |

\* This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

## ON Semiconductor® Voltage Reg. (Cont.)

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| Part No. | Cross Ref.  | Pkg/Pins | Description                         | * Minimum order 5 pieces |        |        |
|----------|-------------|----------|-------------------------------------|--------------------------|--------|--------|
|          |             |          |                                     | 1                        | 5      | 50     |
| 877275   | MC7912CTG   | TO-220/3 | -12V, 1A neg. volt. reg., C-temp    | *                        | \$.387 | \$.358 |
| 797873   | MC7915ACTG  | TO-220/3 | -15V, 1A neg. volt. reg., C-temp    | *                        | .275   | .254   |
| 877312   | MC7915BT    | TO-220/3 | -15V, 1A neg. volt. reg., I-temp    | *                        | .252   | .229   |
| 797890   | MC7915CTG   | TO-220/3 | -15V, 1A neg. volt. reg., C-temp    | *                        | .287   | .268   |
| 797911   | MC7924CT    | TO-220/3 | -24V, 1A neg. volt. reg., C-temp    | *                        | .383   | .332   |
| 797937   | MC79L05ABDG | SOIC-8   | -5V, 100mA neg. volt. reg., I-temp  | *                        | .39    | .353   |
| 877371   | MC79L05ACDG | SOIC-8   | -5V, 100mA neg. volt. reg., C-temp  | *                        | .31    | .10    |
| 877451   | MC79L05ACPG | TO-92/3  | -5V, 100mA neg. volt. reg., C-temp  | *                        | .272   | .235   |
| 877478   | MC79L12ABD  | SOIC-8   | -12V, 100mA neg. volt. reg., I-temp | *                        | .188   | .166   |
| 877494   | MC79L12ACP  | TO-92/3  | -12V, 100mA neg. volt. reg., C-temp | *                        | .291   | .23    |
| 797945   | MC79L15ACDG | SOIC-8   | -15V, 100mA neg. volt. reg., C-temp | *                        | .112   | .109   |
| 877531   | MC79L15ACP  | TO-92/3  | -15V, 100mA neg. volt. reg., C-temp | *                        | .204   | .147   |
| 877558   | MC79M05CT   | TO-220/3 | -5V, 500mA neg. volt. reg., C-temp  | *                        | .308   | .25    |
| 877574   | MC79M12CT   | TO-220/3 | -12V, 500mA neg. volt. reg., C-temp | *                        | .329   | .25    |
| 797961   | MC79M15CTG  | TO-220/3 | -15V, 500mA neg. volt. reg., C-temp | *                        | .223   | .186   |

## Voltage Regulators

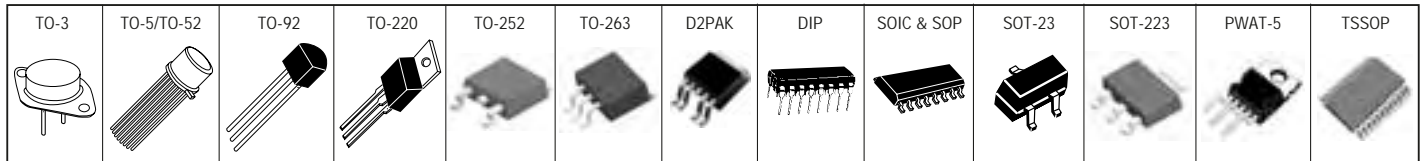
Package (see pg 29)

| Part No. | Mfr. | Cross Ref.    | Pkg/Pins | Description  | * Minimum order 10 pieces |        |        |
|----------|------|---------------|----------|--|---------------------------|--------|--------|
|          |      |               |          |  | 1                         | 10     | 100    |
| 23499    | +    | LM309K        | TO-3/2   | 5V 1A regulator (0°C to +125°C)                    | \$4.99                    | \$4.24 | \$3.18 |
| 192268   | +    | LM317AT       | TO-220/3 | 3-terminal adjustable reg. (1.2V-37V)              | 1.75                      | 1.25   | .95    |
| 192276   | +    | LM317HVT      | TO-220/3 | 3-terminal adjustable reg. (1.2V-57V)              | 1.99                      | 1.77   | 1.31   |
| 23544    | +    | LM317K        | TO-3/2   | 1.5A adj. pos. reg. (1.2V-37V)                     | 1.75                      | 1.59   | 1.47   |
| 23552    | +    | LM317LZ       | TO-92    | 100mA adj. pos. reg. (1.2V-37V)                    | .23                       | .22    | .20    |
| 23579    | +    | LM317T        | TO-220/3 | 1.5A adj. pos. reg. (1.2V-37V)                     | .45                       | .39    | .34    |
| 23667    | +    | LM323K        | TO-3/2   | 5V 3A positive regulator                           | 2.89                      | 2.75   | 2.29   |
| 23798    | +    | LM337K        | TO-3/2   | 1.5A/3 term. adj. neg. reg.                        | 4.69                      | 3.62   | 2.71   |
| 296841   | +    | LM337LZ       | TO-92    | 3-terminal adj. neg. voltage reg.                  | .67                       | .57    | .43    |
| 23819    | +    | LM337T        | TO-220/3 | 1.5A/adj. neg. reg. (-1.2V-37V)                    | .59                       | .55    | .44    |
| 23835    | +    | LM338K        | TO-3/2   | 5A adj. pos. reg. (1.2V-32V)                       | 5.69                      | 4.47   | 3.74   |
| 192284   | +    | LM338T        | TO-220/3 | 5A adjustable regulator                            | 1.99                      | 1.49   | .99    |
| 23931    | +    | LM350K        | TO-3/2   | 3A/3 term. adj. pos. reg. (1.2V-33V)               | 4.75                      | 4.25   | 3.19   |
| 23940    | +    | LM350T        | TO-220/3 | 3 amp. adj. power regulator                        | 1.09                      | .89    | .69    |
| 278248   | +    | TL431AILP     | TO-92    | Adjustable precision shunt regulator               | .41                       | .34    | .252   |
| 24467    | +    | LM723CN       | DIP-14   | Voltage regulator (2V-37V)                         | .26                       | .24    | .23    |
| 301719   | +    | LM723H        | TO-5     | 2V - 37V, 150mA adj. voltage reg.                  | 3.69                      | 2.83   | 2.12   |
| 298071   | +    | MAX755CSA     | SOIC-8   | -5V/adj., neg. output, invert. curr. mode PWM reg. | 3.55                      | 3.35   | 3.20   |
| 156566   | NSC  | LM2574N-5     | DIP-8    | Step-down 5-voltage regulator                      | 1.55                      | 1.29   | .97    |
| 279638   | NSC  | LM2575HVT-5.0 | TO-220   | Switcher 1A step down V-reg., high Vin range       | 3.95                      | 3.74   | 3.52   |
| 693177   | NSC  | LM2575HVT-5.0 | TO-220/5 | Switcher 1A step down V-reg., high Vin range       | 3.95                      | 3.35   | 3.15   |
| 192399   | +    | LM2576HVT-12  | TO-220/5 | Switcher 3A step down V-reg., high Vin range       | 4.85                      | 4.13   | 3.71   |
| 192372   | NSC  | LM2576HVT-ADJ | TO-220/5 | Switcher 3A step down V-reg., high Vin range       | 5.09                      | 3.93   | 2.95   |
| 245569   | NSC  | LM2576T-5.0   | TO-220/5 | Simple switcher 3A step down volt. reg.            | 2.05                      | 1.87   | 1.40   |
| 120977   | NSC  | LM2576T-ADJ   | TO-220/5 | Simple switcher 3A step down volt. reg.            | 1.69                      | 1.37   | 1.05   |
| 300919   | NSC  | LM2586T-ADJ   | TO-220   | Simple switcher 3A flyback reg. w/ shutdown        | 5.45                      | 5.15   | 5.06   |
| 310391   | NSC  | LM2596S-5.0   | TO-263/5 | Simple switcher 3A step-down voltage reg.          | 4.15                      | 3.22   | 2.90   |
| 290888   | NSC  | LM2674M-ADJ   | SOIC-8   | Adj. voltage hi efficiency switcher                | 2.85                      | 2.35   | 2.20   |
| 245649   | NSC  | LM2936MP-3.3  | SOT-223  | Ultra-low quiescent current 3.3V reg.              | 2.59                      | 2.30   | 2.01   |
| 107166   | NSC  | LM2936Z-5     | TO-92    | Ultra-low quiescent current 5V reg.                | 1.85                      | 1.68   | 1.18   |
| 51246    | +    | 7805K         | TO-3/2   | 5V 1A pos. voltage reg. (LM340K-5)                 | 5.15                      | 3.95   | 2.95   |
| 51262    | +    | 7805T         | TO-220/3 | 5V 1A pos. voltage reg. (LM340T-5)                 | .35                       | .32    | .28    |
| 51182    | +    | 7812CZ        | TO-92    | 5V 100mA pos. voltage regulator                    | .27                       | .24    | .22    |
| 193754   | +    | 78L05ACM      | SOIC-8   | 5V 100mA pos. voltage regulator                    | .22                       | .21    | .19    |
| 192233   | +    | 78M05         | TO-220/3 | 5V 500mA pos. voltage regulator                    | .22                       | .19    | .17    |
| 51297    | +    | 7806T         | TO-220/3 | 6V 1A pos. voltage reg. (LM340T-6)                 | .30                       | .25    | .21    |
| 51300    | +    | 7808CT        | TO-220/3 | 8V 1A pos. voltage reg. (LM340T-8)                 | .46                       | .35    | .263   |
| 192225   | +    | 78L09ACZ      | TO-92    | 9V 100mA pos. voltage regulator                    | .20                       | .173   | .13    |
| 51318    | +    | 7812K         | TO-3/2   | 12V 1A pos. voltage reg. (LM340K-12)               | 2.19                      | 1.79   | 1.59   |
| 51334    | +    | 7812T         | TO-220/3 | 12V 1A pos. voltage reg. (LM340T-12)               | .35                       | .32    | .24    |
| 51203    | +    | 78L12CZ       | TO-92    | 12V 100mA pos. voltage regulator                   | .131                      | .098   |        |
| 192241   | +    | 78M12CT       | TO-220/3 | 12V 500mA pos. voltage regulator                   | .22                       | .20    | .18    |
| 51369    | +    | 7815K         | TO-3/2   | 15V 1A pos. voltage reg. (LM340K-15)               | 1.19                      | 1.02   | .76    |

+ Jameco Value Offering \*10 pieces included in Linear kit, pg 31 \*\*20 pcs. included in Linear kit, pg 31

# Voltage Regulators, PLLs, Audio, Comparators & Buffers

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## Manufacturer Cross Reference Table

Jameco Value Offering

| Manufacturer   | Code | Manufacturer            | Code | Manufacturer      | Code | Manufacturer           | Code | Manufacturer      | Code |
|----------------|------|-------------------------|------|-------------------|------|------------------------|------|-------------------|------|
| Analog Devices | ADI  | Fairchild Semiconductor | FSC  | Maxim Corporation | MAX  | National Semiconductor | NSC  | ST Micro          | ST   |
| Anachip        | ANA  | Linear Technology       | LTC  | Microchip         | MCH  | ON Semi                | ON   | Texas Instruments | TI   |

## Voltage Regulators (Continued)

Package (see above)

\* Minimum order 10 pieces

| Part No. | Mfr. | Cross Ref. | Pkg/Pins | Description                                    | 1      | 10     | 100    |
|----------|------|------------|----------|--|--------|--------|--------|
| 51377    | +    | 7815T      | *        | TO-220/3 15V 1A pos. voltage reg. (LM340T-15)  | \$ .28 | \$ .25 | \$ .22 |
| 192250   | +    | 78M15CT    |          | TO-220/3 15V 500mA pos. voltage regulator      | .32    | .27    | .21    |
| 194634   | +    | 7818T      |          | TO-220/3 18V 1A pos. voltage reg. (LM340T-18)  | .45    | .35    | .26    |
| 51414    | +    | 7824T      |          | TO-220/3 24V 1A pos. voltage reg. (LM340T-24)  | .36    | .34    | .31    |
| 51238    | +    | 78S40CN    |          | DIP-16 1.25V-40V 1.5A switching regulator      | 1.35   | 1.08   | .87    |
| 51457    | +    | 7905T      | *        | TO-220/3 -5V 1A neg. voltage reg. (LM320T-5)   | .42    | .38    | .36    |
| 51422    | +    | 79L05ACP   |          | TO-92 -5V 100mA neg. voltage regulator         | .25    | .22    | .165   |
| 51481    | +    | 7912CT     | *        | TO-220/3 -12V 1A neg. voltage reg. (LM320T-12) | .31    | .27    | .21    |
| 51431    | +    | 79L12CZ    |          | TO-92 -12V 100mA neg. voltage regulator        | .23    | .21    | .16    |
| 51502    | +    | 7915CT     | *        | TO-220/3 -15V 1A neg. voltage reg. (LM320T-15) | .32    | .27    | .22    |
| 194749   | +    | 79L15ACZ   |          | TO-92 -15V 100mA neg. voltage regulator        | .41    | .349   | .262   |
| 193818   | +    | 79L15ACM   |          | TO-92 -15V 100mA neg. voltage regulator        | *      | .114   | .103   |
| 316945   | +    | MC34063AP1 |          | DIP-8 1.5A Step-up/down inverting switch reg.  | .66    | .56    | .421   |

◆ Jameco Value Offering \*10 pieces included in Linear kit, pg 31 = Limited Quantity Available



## Phase Lock Loop

For more National Phase Lock Loops visit [www.Jameco.com](http://www.Jameco.com)

| Part No. | Cross Ref.    | Pkg.     | Description                                   | 1      | 10     | 100    |
|----------|---------------|----------|---|--------|--------|--------|
| 843180   | LMX2306TMNOPB | TSSOP-16 | Low power freq. syn. for RF personal comm     | \$2.45 | \$1.86 | \$1.66 |
| 904456   | LMX2316TM     | TSSOP-16 | Low power freq. syn. for RF personal comm     | 2.49   | 1.90   | 1.69   |
| 843219   | LMX2326TMNOPB | TSSOP-16 | Low power freq. syn. for RF personal comm     | 2.95   | 2.23   | 2.21   |
| 843251   | LMX2330LTM    | TSSOP-20 | Dual freq. syn. for RF personal comm          | 2.95   | 2.25   | 2.09   |
| 843278   | LMX2332LTM    | TSSOP-20 | Dual freq. syn. for RF personal comm          | 2.55   | 1.95   | 1.80   |
| 843315   | LMX2346TM     | TSSOP-16 | Freq. syn. for RF personal comm               | 3.49   | 2.63   | 2.47   |
| 843340   | LMX2350TM     | TSSOP-24 | Fractional N RF/integer N IF dual LP freq syn | 5.95   | 4.49   | 4.21   |
| 843374   | LMX2352TM     | TSSOP-24 | Fractional N RF/integer N IF dual LP freq syn | 5.35   | 4.07   | 3.81   |
| 843411   | LMX2354TM     | TSSOP-24 | Fractional N RF/integer N IF dual LP freq syn | 3.95   | 2.99   | 2.79   |



## Audio Amplifiers

For more National Audio Amplifiers visit [www.Jameco.com](http://www.Jameco.com)

\* Minimum order 5 pieces

| Part No. | Cross Ref.    | Pkg.      | Description  | 1      | 5      | 50     |
|----------|---------------|-----------|--|--------|--------|--------|
| 839797   | LM386M-1NOPB  | SOIC-8    | Low voltage audio power amp.                           | \$1.09 | \$ .77 | \$ .57 |
| 900973   | LM386MX-1     | SOIC-8    | Low voltage audio power amp.                           | *      | .249   | .226   |
| 839826   | LM386N-1NOPB  | DIP-8     | Low voltage audio power amp.                           | 1.09   | .79    | .57    |
| 841361   | LM833MNOPB    | SOIC-8    | Dual audio operational amp.                            | 1.09   | .79    | .57    |
| 903058   | LM833MX       | SOIC-8    | Dual audio operational amp.                            | .90    | .67    | .49    |
| 841395   | LM833VNOPB    | DIP-8     | Dual audio operational amp.                            | 1.09   | .79    | .57    |
| 835753   | LM1875T/LB03  | TO-220/5  | 20W audio power amp.                                   | 3.19   | 2.42   | 1.86   |
| 835761   | LM1876T       | TO-220/15 | Dual 20W audio power amp w/ mute & standby modes       | 5.15   | 4.67   | 4.26   |
| 835770   | LM1876T       | TO-220/15 | Dual 20W audio power amp w/ mute & standby modes       | 5.59   | 4.96   | 4.43   |
| 835788   | LM1877M-9NOPB | DIP-14    | Dual audio power amp.                                  | 1.75   | 1.27   | .93    |
| 835809   | LM1973M       | SOIC-20   | μPOT™ 3-ch 76dB audio attenuator w/ mute               | 4.35   | 3.35   | 3.09   |
| 835817   | LM1973N       | DIP-20    | μPOT™ 3-ch 76dB audio attenuator w/ mute               | 4.69   | 3.57   | 3.35   |
| 840270   | LM4752TS      | TO-263/7  | Stereo 1W audio power amp.                             | 2.79   | 2.10   | 1.57   |
| 901634   | LM4765T       | TO-220/15 | Dual 30W audio power amp w/ mute & standby modes       | 5.15   | 3.93   | 3.55   |
| 840122   | LM4835MTE     | TSSOP-28  | 2W audio power amp w/ DC vol control & selectable gain | 3.49   | 2.67   | 2.50   |
| 901554   | LM4861M       | SOIC-8    | 1.1W audio power amp. w/ shutdown mode                 | 1.49   | 1.12   | .87    |
| 840181   | LM4862MNOB    | SOIC-8    | 675mW audio power amp. w/ shutdown mode                | 1.75   | 1.28   | .94    |
| 840211   | LM4865M       | SOIC-8    | 750mW audio pwr amp. w/ DC vol control/headphone sw    | 1.79   | 1.34   | 1.04   |
| 901597   | LM4880M       | SOIC-8    | Dual 250mW audio power amp. w/ shutdown mode           | 1.45   | 1.09   | .80    |
| 840245   | LM4890M       | SOIC-8    | 1W audio power amp.                                    | 1.49   | 1.10   | .91    |

◆ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

## Audio Amplifiers

Package (see above)

| Part No. | Mfr. | Cross Ref. | Pkg.      | Description                           | 1                     | 10     | 100    |
|----------|------|------------|-----------|---------------------------------------|-----------------------|--------|--------|
| 243678   | ADI  | OP275GP    | DIP-8     | Dual JFET audio op amp.               | \$1.75                | \$1.61 | \$1.47 |
| 24037    | NSC  | LM380N     | DIP-14    | 2-watt audio power amp.               | .94                   | .87    | .63    |
| 24088    | NSC  | LM383T     | TO-220/5  | 7-watt audio high power amp.          | 5.95                  | 5.39   | 4.95   |
| 24096    | NSC  | LM384N     | DIP-14    | 5-watt audio amp.                     | <del>\$1.22</del> .95 | .81    | .66    |
| 193623   | +    | LM386M-1   | SOIC-8    | Low volt. audio power amp. 250mW/12V  | .26                   | .24    | .22    |
| 24125    | +    | LM386N-1   | * DIP-8   | Low voltage audio amp. 250mW/6V       | .48                   | .35    | .29    |
| 24133    | +    | LM386N-3   | * DIP-8   | Low voltage audio amp. 500mW/9V       | .69                   | .59    | .49    |
| 24483    | NSC  | LM725CN    | DIP-8     | Instrumentation op amplifier          | 2.19                  | 1.68   | 1.26   |
| 295718   | NSC  | LM1203N    | DIP-28    | RGB video amp.                        | 4.55                  | 3.87   | 2.90   |
| 24942    | ON   | MC1350P    | DIP-8     | Video IF amp. (12V operation)         | 1.95                  | 1.85   | 1.75   |
| 23270    | NSC  | LM1875T    | TO-220/5  | 20-watt power audio amplifier         | 1.95                  | 1.91   | 1.64   |
| 23288    | NSC  | LM1877N-9  | DIP-14    | Dual power audio amplifier            | 1.05                  | .89    | .67    |
| 245542   | NSC  | LM1881M    | SOIC-8    | Video synchronous separator           | 1.95                  | 1.66   | 1.24   |
| 107140   | NSC  | LM1881N    | DIP-8     | Video synchronous separator           | 2.85                  | 2.19   | 1.66   |
| 243547   | NSC  | LM1894N    | DIP-14    | DNR noise reduction                   | 2.69                  | 2.48   | 1.86   |
| 32897    | ST   | TDA2002V   | TO-220/5  | 8-watt audio high power amp.          | 3.75                  | 3.35   | 3.00   |
| 315344   | ST   | TDA2040V   | PWAT-5    | 20W hi-fi audio power amp.            | 2.45                  | 2.08   | 1.56   |
| 275830   | ADI  | OPA2134PA  | DIP-8     | High-performance audio op amp.        | 2.29                  | 1.85   | 1.73   |
| 275821   | ADI  | OPA2134UA  | SOIC-8    | High-performance audio op amp.        | 2.25                  | 2.02   | 1.82   |
| 252013   | NSC  | LM3875T    | TO-220/11 | 56W high perf. audio power amp.       | 5.19                  | 4.40   | 4.00   |
| 320670   | NSC  | LM3886TF   | TO-220/11 | 68W high perf. audio amp., isol. pkg. | 5.59                  | 4.45   | 4.18   |
| 192516   | NSC  | LM3886T    | TO-220/11 | 68W high perf. audio amp.             | 4.35                  | 3.95   | 2.95   |
| 302201   | NSC  | LM4752T    | TO-220    | Stereo 11W audio power amp.           | 2.35                  | 1.76   | 1.32   |
| 316873   | MOT  | MC34119D   | SOIC-8    | LP audio amp. (500mW, 16VDC)          | .56                   | .48    | .36    |
| 316865   | MOT  | MC34119P   | DIP-8     | LP audio amp. (500mW, 16VDC)          | 1.02                  | .87    | .65    |

◆ Jameco Value Offering \*10 pcs. included in Linear kit, pg 31

## Comparators

Package (see above)

| Part No. | Mfr. | Cross Ref. | Pkg.     | Description                          | 1      | 10     | 100    |
|----------|------|------------|----------|--------------------------------------|--------|--------|--------|
| 282087   | +    | LM139J     | CDIP-14  | Low pwr, low offset volt quad comp.  | \$3.25 | \$2.76 | \$2.07 |
| 23528    | +    | LM311N     | * DIP-8  | Voltage comparator                   | .35    | .25    | .19    |
| 23632    | +    | LM319N     | DIP-14   | High speed dual comparator           | .31    | .264   | .197   |
| 143888   | +    | LM339AN    | DIP-14   | Low power quad comparator            | .29    | .23    | .193   |
| 193594   | +    | LM339M     | SOIC-14  | Low power low offset volt quad comp. | .27    | .23    | .17    |
| 23851    | +    | LM339N     | * DIP-14 | Quad comparator                      | .21    | .19    | .165   |
| 120900   | +    | LM392N     | DIP-8    | Low power op amp./volt comp.         | 1.18   | 1.00   | .75    |
| 212177   | +    | LM393AN    | DIP-8    | Low pwr low offset volt dual comp.   | .20    | .175   | .135   |
| 24281    | +    | LM393N     | * DIP-8  | Dual comparator                      | .20    | .18    | .17    |
| 312266   | LTC  | LT1016CS8  | SOIC-8   | Ultra-fast precision 10ns comparator | 4.89   | 3.55   | 2.76   |
| 107238   | +    | LM3302N    | DIP-14   | Low pwr low offset volt quad comp.   | .33    | .28    | .21    |

◆ Jameco Value Offering \*10 pieces included in Linear kit, pg 31 \*20 pieces included in Linear kit, pg 31

## Buffers

Package (see above)

| Part No. | Mfr. | Cross Ref. | Pkg.   | Description             | 1       | 10      | 100    |
|----------|------|------------|--------|-------------------------|---------|---------|--------|
| 23051    | +    | LH0002CN   | DIP-10 | General purpose buffer  | \$12.25 | \$10.25 | \$7.95 |
| 277552   | TI   | BUF634P    | DIP-8  | 250mA high speed buffer | 5.85    | 5.54    | 5.27   |
| 277544   | TI   | BUF634T    | TO-220 | 250mA high speed buffer | 7.85    | 7.60    | 6.99   |
| 277579   | TI   | BUF634U    | SOIC-8 | 250mA high speed buffer | 5.85    | 5.54    | 5.27   |

◆ Jameco Value Offering

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## Op Amps

| Part No. | Mfr. | Cross Ref. | Pkg.     | Description                              | 1     | 10    | 100   |
|----------|------|------------|----------|--|-------|-------|-------|
| 27852    | ✦    | OP07CP     | DIP-8    | Ultra-low offset voltage op amp          | \$.61 | \$.59 | \$.56 |
| 252988   | ✦    | OP07DP     | DIP-8    | Very low offset single bipolar op amp    | .68   | .58   | .43   |
| 23106    | ✦    | LM10CLN    | DIP-8    | Low voltage (1.1 volt) op amp            | 1.75  | 1.49  | 1.26  |
| 120715   | ✦    | LM10CN     | DIP-8    | Op amp and voltage reference             | 2.45  | 1.90  | 1.43  |
| 120723   | NSC  | LM12CLK    | TO-3/4   | 80W op amp                               | 17.05 | 16.10 | 15.30 |
| 115300   | ✦    | OP27EP     | DIP-8    | Low noise precision op amp               | 4.39  | 3.57  | 2.67  |
| 115318   | ✦    | OP27GP     | DIP-8    | Low noise prec op amp (-40° to 80°C)     | 1.89  | 1.54  | 1.15  |
| 275805   | TI   | OPA27GP    | DIP-8    | Ultra-low noise precision op amp         | 2.39  | 2.14  | 1.89  |
| 275784   | TI   | OPA27GU    | SOIC-8   | Ultra-low noise precision op amp         | 2.25  | 1.49  | 1.11  |
| 214068   | ✦    | TL034CN    | DIP-14   | Enhanced low pwr/offset op amp           | 1.05  | .92   | .83   |
| 275768   | ✦    | OPA37GP    | DIP-8    | Ultra-low noise precision op amp         | 2.45  | 2.19  | 1.97  |
| 213153   | ✦    | TL054ACN   | DIP-14   | Enhanced JFET low offset op amp          | 4.25  | 3.61  | 2.71  |
| 33161    | ✦    | TL062CP    | DIP-8    | Low power JFET op amp (high slew)        | .23   | .199  | .149  |
| 33187    | ✦    | TL071CP    | DIP-8    | Low noise JFET op amp                    | .33   | .31   | .232  |
| 213073   | ✦    | TL072ACP   | DIP-8    | Low noise JFET input op amp              | .56   | .43   | .31   |
| 33195    | ✦    | TL072CP    | *DIP-8   | Low noise JFET dual op amp               | .26   | .25   | .24   |
| 33216    | ✦    | TL074CN    | *DIP-14  | Low noise JFET quad op amp               | .48   | .43   | .345  |
| 213057   | ✦    | TL081ACP   | DIP-8    | JFET input op amp, low offset w/ control | .51   | .43   | .32   |
| 33232    | ✦    | TL081CP    | DIP-8    | JFET input op amp., offset control       | .22   | .21   | .20   |
| 214076   | ✦    | TL082ACP   | DIP-8    | JFET input op amp., low offset           | .34   | .32   | .29   |
| 253198   | ✦    | TL082BCP   | DIP-8    | JFET input op amp., lowest offset        | .62   | .46   | .37   |
| 33241    | ✦    | TL082CP    | *DIP-8   | JFET input dual op amp                   | .53   | .40   | .30   |
| 214084   | ✦    | TL084ACN   | DIP-14   | JFET input op amp                        | .34   | .32   | .27   |
| 193535   | ✦    | TL084CD    | SOIC-14  | JFET input quad op amp                   | .27   | .23   | .173  |
| 33267    | ✦    | TL084CN    | *DIP-14  | JFET input quad op amp                   | .43   | .40   | .37   |
| 276488   | TI   | OPA124U    | SOIC-8   | Low noise prec. DIFET op amp             | 7.49  | 7.15  | 6.81  |
| 302359   | ✦    | LM224U     | CDIP-14  | Low power quad industrial temp           | 3.65  | 3.39  | 3.12  |
| 212142   | ✦    | LM258N     | DIP-8    | Low pwr dual op amp industrial temp      | .35   | .32   | .24   |
| 280241   | ✦    | TLC277CP   | DIP-8    | Prec. dual op amp, low offset            | 1.47  | 1.18  | .98   |
| 245665   | ✦    | LM301AH    | TO-5/8   | Operational amplifier                    | 2.15  | 1.83  | 1.37  |
| 212151   | ✦    | LM301AN    | DIP-8    | Operational amplifier                    | .34   | .289  | .269  |
| 245673   | ✦    | LM308AH    | TO-5/8   | Precision op amplifier                   | 3.29  | 2.80  | 2.19  |
| 23464    | ✦    | LM308N     | *DIP-8   | Precision op amplifier                   | 5.49  | 4.99  | 4.36  |
| 23608    | ✦    | LM318N     | DIP-8    | Precision high speed op amplifier        | .59   | .54   | .48   |
| 212169   | ✦    | LM324AN    | DIP-14   | Low power quad op amp, impr. offset      | .29   | .25   | .22   |
| 86721    | ✦    | LM324D     | SOIC-14  | Low power quad op amplifier              | .21   | .18   | .13   |
| 23683    | ✦    | LM324N     | *DIP-14  | Low power quad op amplifier              | .28   | .24   | .21   |
| 22904    | ✦    | LF347N     | DIP-14   | Quad JFET input op amp (wide band)       | .39   | .32   | .264  |
| 23915    | ✦    | LM348N     | DIP-14   | Quad 741 op amp (UPC4741C)               | .24   | .18   | .14   |
| 22912    | ✦    | LF351N     | DIP-8    | BIFET op amplifier                       | .39   | .35   | .29   |
| 22939    | ✦    | LF353N     | *DIP-8   | Dual BIFET (comp w/ TL082CP)             | .39   | .37   | .35   |
| 22971    | ✦    | LF356N     | *DIP-8   | JFET input op amplifier (wide band)      | .79   | .67   | .49   |
| 22998    | ✦    | LF357N     | DIP-8    | JFET input op amp (wide band decomp.)    | 2.55  | 2.30  | 1.72  |
| 246588   | ✦    | LM358AM    | SOIC-8   | Low power dual op amp., impr. offset     | .24   | .204  | .196  |
| 120862   | ✦    | LM358AN    | DIP-8    | Low power dual (improved 358N)           | .29   | .25   | .23   |
| 23966    | ✦    | LM358N     | *DIP-8   | Low power dual op amplifier              | .24   | .21   | .18   |
| 23018    | ✦    | LF411CN    | *DIP-8   | Low offset drift JFET input op amp       | 1.35  | 1.00  | .75   |
| 193640   | ✦    | LF412CD    | SOIC-8   | Low offset drift JFET input dual         | .27   | .24   | .22   |
| 23026    | ✦    | LF412CN    | *DIP-8   | Low offset drift JFET input dual         | 1.03  | .76   | .56   |
| 106681   | ✦    | LF442CN    | DIP-8    | Dual low power JFET input op amp         | 1.35  | 1.00  | .75   |
| 119992   | ✦    | LF444CN    | DIP-14   | Dual low pwr JFET input op amp           | 1.38  | 1.02  | .69   |
| 276541   | MAX  | MAX492CPA  | DIP-8    | Dual upwr, single supply rail-to-rail    | 5.09  | 4.05  | 3.63  |
| 143976   | ✦    | LMC660CN   | DIP-14   | CMOS quad operational amplifier          | 1.35  | 1.20  | .90   |
| 120926   | ✦    | LM675T     | TO-220/5 | Power op amplifier                       | 4.85  | 4.05  | 4.01  |
| 24491    | ✦    | LM733CN    | DIP-14   | Differential amplifier                   | 1.15  | .99   | .89   |
| 24521    | ✦    | LM741CH    | TO-5/8   | Op amplifier                             | 3.25  | 2.90  | 2.61  |
| 24539    | ✦    | LM741CN    | *DIP-8   | Op amplifier                             | .29   | .25   | .19   |
| 24563    | ✦    | LM747CN    | DIP-14   | Dual 741 op amplifier                    | 4.19  | 3.85  | 3.39  |
| 311132   | ADI  | AD811AN    | DIP-8    | High performance video op amp            | 6.99  | 6.65  | 6.34  |
| 143896   | NSC  | LM837N     | DIP-14   | Low noise quad operational amp           | 1.35  | 1.12  | .82   |
| 239222   | LTC  | LT1001CN8  | DIP-8    | Precision op amplifier                   | 2.05  | 1.65  | 1.24  |
| 239169   | ✦    | LT1013CP   | DIP-8    | Dual precision op amplifier              | 1.16  | .94   | .71   |

✦ Jameco Value Offering \*10 pcs. / \*\*20 pcs. in Linear kit, pg 31

⊕ Blue Part No. = Limited Quantity Available

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♻️ RoHS compliant product ⊕ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

## Op Amps (Continued)

Package (see pg 31)

| Part No. | Mfr. | Cross Ref. | Pkg.   | Description                               | 1      | 10     | 100    |
|----------|------|------------|--------|---|--------|--------|--------|
| 239177   | ✦    | LT1014DN   | DIP-14 | Quad precision op amplifier               | \$3.29 | \$2.99 | \$2.89 |
| 300193   | LTC  | LTC1050CN8 | DIP-8  | Precision zero-drift w/ int. cap          | 3.35   | 2.27   | 1.70   |
| 193682   | ✦    | LM1458M    | SOIC-8 | Dual op amplifier                         | .26    | .22    | .165   |
| 23131    | ✦    | LM1458N    | *DIP-8 | Dual op amplifier                         | .29    | .26    | .20    |
| 57007    | ✦    | 22902N     | DIP-14 | Low power quad op amplifier               | .25    | .23    | .22    |
| 12116    | ✦    | CA3080E    | DIP-8  | Op transconductance amp. (100135)         | 2.95   | 2.65   | 2.38   |
| 12183    | ✦    | CA3130E    | DIP-8  | CMOS op amplifier                         | .81    | .72    | .69    |
| 12204    | ✦    | CA3140E    | DIP-8  | Bi-MOS op amplifier                       | .51    | .47    | .42    |
| 212193   | ✦    | MC3403N    | DIP-14 | Quad bipolar op amplifier                 | .42    | .357   | .268   |
| 24168    | ✦    | LM3900N    | DIP-14 | Quad amplifier                            | .77    | .65    | .53    |
| 29356    | ✦    | RC4136N    | DIP-14 | Quad op amp. (XR4136)                     | .68    | .63    | .47    |
| 251125   | ✦    | MC4558CN   | DIP-8  | Wide bandwidth dual bipolar op amp        | .27    | .25    | .23    |
| 252970   | ✦    | NE5532AP   | DIP-8  | Dual lower noise op amplifier             | .50    | .45    | .39    |
| 27385    | ✦    | NE5532N    | *DIP-8 | Dual low noise op amplifier               | .66    | .50    | .38    |
| 27406    | ✦    | NE5534     | DIP-8  | Low noise op amplifier                    | .78    | .66    | .54    |
| 302068   | NSC  | LM6142AM   | SOIC-8 | Dual r-r in/out, 17MHz                    | 4.35   | 3.70   | 3.61   |
| 301903   | NSC  | LM6171BN   | DIP-8  | Hi speed, LP low distortion volt feedback | 2.35   | 2.12   | 1.91   |
| 301874   | NSC  | LM6181IN   | DIP-8  | 100mA, 100MHz current feedback            | 2.19   | 1.69   | 1.54   |
| 301364   | NSC  | LMC6442IN  | DIP-8  | Dual µpwr r-r output single supply        | 2.25   | 1.95   | 1.75   |
| 126893   | NSC  | LMC6482AN  | DIP-8  | CMOS dual r-r input/output, lower VOS     | 1.89   | 1.43   | 1.07   |
| 267223   | NSC  | LMC6482IN  | DIP-8  | CMOS dual r-r I/O op amp                  | 1.69   | 1.24   | .92    |
| 301356   | NSC  | LMC6484AN  | DIP-14 | CMOS quad r-r I/O op amp., lower VOS      | 2.99   | 2.09   | 1.82   |
| 301794   | NSC  | LM7171AIN  | DIP-8  | Hi speed hi output current volt feedback  | 2.39   | 2.15   | 1.98   |
| 312750   | ADI  | AD8052AR   | SOIC-8 | Low-cost high speed r-r                   | 2.55   | 2.17   | 1.63   |
| 312768   | ADI  | AD8052ARM  | µSO-8  | Low-cost high speed r-r                   | 3.35   | 2.54   | 1.91   |
| 192532   | ✦    | LM13700N   | DIP-16 | Dual op transcon. w/ diodes/buffer        | 1.20   | .88    | .64    |
| 277704   | ✦    | MC33202P   | DIP-8  | Low voltage r-r op amp                    | .69    | .59    | .49    |
| 251117   | ✦    | MC34072D   | SOIC-8 | Single supply 3V-44V op amp               | .42    | .38    | .285   |
| 251061   | ✦    | MC34072P   | DIP-8  | Single supply 3V-44V op amp               | .91    | .77    | .58    |

✦ Jameco Value Offering \*10 pcs. / \*\*20 pcs. in Linear kit, pg 31

## Linear Series

Package (see pg 31)

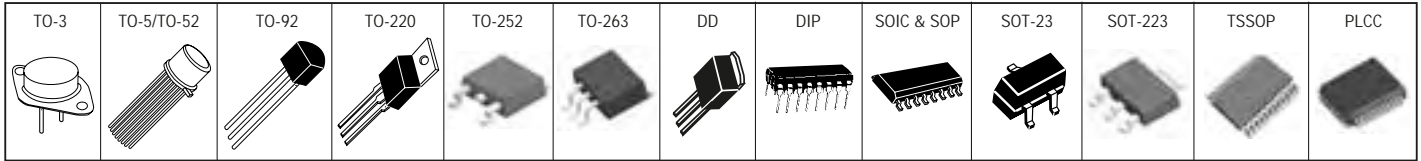
| Part No. | Mfr. | Cross Ref.  | Pkg.    | Description                           | 1      | 10     | 100    |
|----------|------|-------------|---------|---------------------------------------|--------|--------|--------|
| 25751    | ✦    | MF10CN      | DIP-20  | General purpose dual active filter    | \$3.35 | \$3.03 | \$2.76 |
| 16301    | ✦    | DS0026CN    | DIP-8   | Dual MOS clk. driver (5MHz)(TC426CPA) | 5.19   | 4.67   | 4.19   |
| 239281   | ✦    | DG201BDJ    | DIP-16  | Quad analog switch                    | 1.34   | 1.25   | .98    |
| 674291   | VSH  | DG201BDY    | SOP-16  | CMOS quad SPST analog switch          | 1.19   | 1.07   | 1.00   |
| 674304   | VSH  | DG201HSDY   | SOP-16  | CMOS quad SPST analog switch          | 3.05   | 2.75   | 2.46   |
| 239290   | ✦    | DG202BDJ    | DIP-16  | Quad analog switch                    | 1.99   | 1.90   | 1.81   |
| 239311   | ✦    | DG211BDJ    | DIP-16  | Quad analog switch                    | 1.29   | 1.25   | 1.20   |
| 674321   | VSH  | DG211BDY    | SOP-16  | CMOS quad SPST analog switch          | 1.33   | 1.20   | 1.06   |
| 239329   | ✦    | DG211CJ     | DIP-16  | SPST quad channel analog switch       | 2.85   | 2.42   | 1.82   |
| 674339   | VSH  | DG212BDY    | SOP-16  | CMOS quad SPST analog switch          | 1.17   | 1.05   | .97    |
| 697119   | VSH  | DG271BDY    | SOIC-16 | Hi-spd quad mono (SPST) switch        | 3.79   | 3.06   | 2.89   |
| 291055   | ✦    | LM285Z-1.2  | TO-92   | 1.2V voltage reference, 20mA          | .52    | .43    | .38    |
| 674347   | VSH  | DG303BDJ    | DIP-14  | Dual CMOS DPST analog switch          | 2.55   | 2.31   | 2.08   |
| 277052   | ✦    | MAX303CSE   | SOIC-16 | Precision dual hi speed analog switch | 10.55  | 8.24   | 7.51   |
| 23721    | ✦    | LM331N      | DIP-8   | Prec volt to freq convtr (150ppm/°C)  | 2.19   | 1.69   | 1.30   |
| 674355   | VSH  | DG333ADW    | SOP-20  | Precision quad SPDT analog switch     | 3.19   | 2.87   | 2.48   |
| 23739    | ✦    | LM334Z      | TO-92   | Adjust current source                 | .43    | .40    | .36    |
| 297676   | ✦    | LM336BZ-5.0 | TO-92   | 5V voltage reference diode            | 1.32   | .98    | .81    |
| 193578   | ✦    | LM336M-2.5  | SOIC-8  | Precision 2.5V shunt regulator diode  | .33    | .30    | .27    |
| 23771    | ✦    | LM336Z-2.5  | TO-92   | Voltage reference (2.5V)              | .30    | .22    | .17    |
| 120889   | ✦    | LM385B22.5  | TO-92   | Voltage reference diode (2.5V±1.5%)   | .39    | .332   | .249   |
| 24117    | ✦    | LM385Z12    | TO-92   | Micropower volt ref diode (1.2V)      | .49    | .35    | .31    |
| 24109    | ✦    | LM385Z-2.5  | TO-92   | Voltage reference diode (2.5V±3%)     | .41    | .374   | .281   |

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## Manufacturer Cross Reference Table


Jameco Value Offering 

| Manufacturer   | Code | Manufacturer            | Code | Manufacturer      | Code | Manufacturer           | Code | Manufacturer      | Code |
|----------------|------|-------------------------|------|-------------------|------|------------------------|------|-------------------|------|
| Analog Devices | ADI  | Fairchild Semiconductor | FSC  | Maxim Corporation | MAX  | National Semiconductor | NSC  | ST Micro          | ST   |
| Anachip        | ANA  | Linear Technology       | LTC  | Microchip         | MCH  | ON Semi                | ON   | Texas Instruments | TI   |

## Linear Series (Continued)

Package (see above)

| Part No. | Mfr. | Cross Ref. | Pkg.     | Description                                  | * Minimum order 10 pieces |              |              |
|----------|------|------------|----------|--|---------------------------|--------------|--------------|
|          |      |            |          |  | 1                         | 10           | 100          |
| 23000    | +    | LF398N     | DIP-8    | Sample and hold circuit                      | <b>\$.95</b>              | <b>\$.81</b> | <b>\$.62</b> |
| 697127   | VSH  | DG403BD    | DIP-16   | Low-power, high-speed switch                 | 1.75                      | 1.59         | 1.43         |
| 309833   | +    | DG403DJ    | DIP-16   | Dual SPDT (NO) & SPDT (NC) analog switch     | 2.95                      | 2.73         | 2.45         |
| 697143   | VSH  | DG405DY    | SOIC-16  | Low-power, high-speed analog switch          | 3.09                      | 2.79         | 2.53         |
| 256541   | +    | DG406DJ    | DIP-28   | 1 of 16 multiplexer/demultiplexer            | <b>4.65</b>               | <b>3.94</b>  | <b>2.96</b>  |
| 674363   | VSH  | DG406DN    | PLCC-28  | Imprvd 16-ch/dual 8-ch CMOS analog mux.      | <b>4.39</b>               | <b>3.95</b>  | <b>3.64</b>  |
| 674371   | VSH  | DG406DW    | SOP-28   | Imprvd 16-ch/dual 8-ch CMOS analog mux.      | <b>4.79</b>               | <b>4.32</b>  | <b>3.97</b>  |
| 272161   | +    | DG407DJ    | DIP-28   | Dual 8-ch multiplexer/demultiplexer          | 5.69                      | 5.11         | 4.61         |
| 256532   | +    | DG408DJ    | DIP-16   | 1 of 8 multiplexer/demultiplexer             | <b>1.75</b>               | <b>1.49</b>  | <b>1.12</b>  |
| 279582   | +    | DG408DY    | SOIC-16  | 1 of 8 multiplexer/demultiplexer             | 1.30                      | 1.23         | 1.10         |
| 243643   | +    | DG411DJ    | DIP-16   | Quad SPST (NC) analog switch                 | <b>1.99</b>               | <b>1.79</b>  | <b>1.33</b>  |
| 256516   | +    | DG412DJ    | DIP-16   | Quad SPST (NO) analog switch                 | 1.49                      | .99          | .96          |
| 674398   | VSH  | DG413DJ    | DIP-16   | Imprvd quad SPST (2NO&2NC) analog sw.        | 1.36                      | 1.03         | .61          |
| 674401   | VSH  | DG417DY    | SOP-8    | Improved SPST NC analog switch               | .78                       | .74          | .64          |
| 674419   | VSH  | DG418DJ    | DIP-8    | Improved SPST NO analog switch               | 1.44                      | 1.32         | 1.19         |
| 674427   | VSH  | DG418DY    | SOP-8    | Improved SPST NO analog switch               | .78                       | .74          | .64          |
| 279540   | +    | DG419DJ    | DIP-8    | Dual SPST (NO), dual SPST (NC) analog switch | <b>1.85</b>               | <b>1.60</b>  | <b>1.51</b>  |
| 33347    | +    | TL431CLP   | TO-92    | Program precision reference                  | .32                       | .27          | <b>.20</b>   |
| 697151   | VSH  | DG441DY    | SOIC-16  | Quad (SPST) CMOS analog switch               | 1.19                      | 1.09         | 1.03         |
| 33355    | +    | TL494CN    | DIP-16   | Control circuit pulse-width-modulated        | <b>.43</b>                | <b>.37</b>   | <b>.28</b>   |
| 697178   | VSH  | DG540DN    | PLCC-20  | Wideband/video "T" switch                    | 3.65                      | 3.35         | 3.15         |
| 697186   | VSH  | DG541DY    | SOIC-16  | Wideband/video "T" switch                    | 3.19                      | 2.93         | 2.75         |
| 86799    | +    | LM555CM    | SOIC-8   | Timer (NE555D)                               | *                         | .16          | .13          |
| 27422    | +    | LM555CN    | DIP-8    | Timer (MC1455P/NE555V)                       | .29                       | .23          | .20          |
| 246676   | +    | LMC555CM   | SOIC-8   | CMOS 555 timer                               | <b>.59</b>                | <b>.42</b>   | <b>.31</b>   |
| 126797   | +    | LMC555CN   | DIP-8    | CMOS 555 timer                               | .51                       | .47          | .42          |
| 193658   | +    | LM556CM    | SOIC-14  | Dual 555 timer                               | <b>.31</b>                | <b>.26</b>   | <b>.195</b>  |
| 24328    | +    | LM556N     | DIP-14   | Dual 555 timer                               | .82                       | .60          | .45          |
| 27457    | +    | NE558N     | DIP-16   | Quad timer (NE558C)                          | .68                       | .62          | .52          |
| 27473    | +    | NE564N     | DIP-16   | High frequency phase locked loop             | 1.95                      | 1.49         | 1.05         |
| 24352    | +    | LM565N     | DIP-14   | Phase locked loop                            | 1.69                      | 1.28         | .96          |
| 24379    | +    | LM566CN    | DIP-8    | Function generator (VCO)                     | <b>12.95</b>              | <b>12.31</b> | <b>11.69</b> |
| 24395    | +    | LM567CN    | DIP-8    | Tone decoder                                 | .45                       | .43          | .31          |
| 246650   | +    | LMC567CN   | DIP-8    | Tone decoder                                 | <b>1.55</b>               | <b>1.19</b>  | <b>.89</b>   |
| 27490    | +    | NE571N     | DIP-16   | Companion, subscriber                        | 3.29                      | 2.99         | 2.69         |
| 287700   | +    | AD580JH    | TO-52    | 2.5V volt reference high precision           | 3.79                      | 3.18         | 2.89         |
| 287785   | ADI  | AD581KH    | TO-5/3   | 10V volt ref hi prec 10mV tolerance          | 8.09                      | 7.37         | 6.89         |
| 287814   | ADI  | AD584JH    | TO-99    | Prog voltage reference 30mV tol.             | <b>5.65</b>               | <b>4.80</b>  | <b>3.60</b>  |
| 697194   | VSH  | DG613DY    | SOIC-16  | Hi-spd, low-glitch D/C MOS analog sw.        | 3.19                      | 2.96         | 2.82         |
| 115174   | ADI  | AD620AN    | DIP-8    | Low-cost instrument amplifier                | <b>12.65</b>              | <b>11.60</b> | <b>8.70</b>  |
| 115182   | ADI  | AD633JN    | DIP-8    | Low-cost analog multiplier                   | 7.75                      | 6.97         | 6.28         |
| 674435   | VSH  | DG641DY    | SOP-16   | Quad SPST low on-res. wideband/video sw.     | 2.29                      | 2.22         | 1.90         |
| 674451   | VSH  | DG642DY    | SOP-8    | SPDT low on-res. wideband/video sw.          | 1.89                      | 1.78         | 1.38         |
| 674460   | VSH  | DG643DY    | SOP-16   | Dual SPDT low on-res. wideband/video sw.     | <b>2.75</b>               | <b>2.62</b>  | <b>2.03</b>  |
| 312186   | +    | MAX624CSA  | SOIC-8   | Pos. 12V 30mA flash memory prog supply       | <b>4.05</b>               | <b>3.44</b>  | <b>2.58</b>  |
| 312151   | MAX  | MAX7240CX  | TO-220/5 | 5A/2A step-down PWM switch mode DC-DC reg    | 10.75                     | 9.13         | 8.67         |
| 316515   | +    | TC962CPA   | DIP-8    | High current charge pump DC-DC con.          | 2.09                      | 2.03         | 1.95         |
| 239257   | +    | LT1004C-12 | TO-92    | 1.2V, micropower voltage reference           | .68                       | .58          | .46          |
| 118578   | +    | MC1495L    | DIP-14   | Linear four quadrant multiplier              | 9.95                      | 8.95         | 8.05         |
| 23211    | +    | LM1496N    | DIP-14   | Balanced mod/demodulator (MC1496P)           | .65                       | .60          | .54          |
| 34278    | +    | ULN2003AN  | * DIP-16 | Hi-volt/curr. darl. transistor array         | .39                       | .32          | .28          |
| 193826   | +    | ULN2003AD  | SOIC-16  | Hi-volt/curr. darl. transistor array         | .39                       | .35          | .29          |
| 34294    | +    | ULN2004AN  | DIP-16   | Hi-volt/curr. darl. trans. array (XR2204CP)  | .35                       | .30          | .25          |
| 34972    | +    | XR2206CP   | DIP-16   | Monolithic function generator                | 3.59                      | 3.29         | 2.99         |

♦ Jameco Value Offering \*10 pcs./\*\*20 pcs. in Linear kit, right  Blue P/N = Limited Qty Available

## Linear Series (Continued)

Package (see above)

| Part No. | Mfr. | Cross Ref. | Pkg.     | Description                             | 1 10 100           |               |               |
|----------|------|------------|----------|---|--------------------|---------------|---------------|
|          |      |            |          |   | 1                  | 10            | 100           |
| 34999    | +    | XR2211N    | DIP-14   | FSK demodulator/tone decoder            | <b>\$1.79</b>      | <b>\$1.59</b> | <b>\$1.39</b> |
| 280073   | +    | TL2426CLP  | TO-92    | Rail splitter precision virtual ground  | 1.26               | 1.00          | .90           |
| 34315    | +    | ULN2803A   | * DIP-16 | Hi-volt/curr. darl. transistor array    | .69                | .59           | .49           |
| 123625   | +    | LM2907N-8  | DIP-8    | Frequency to voltage converter          | 1.31               | 1.15          | 1.01          |
| 23317    | +    | LM2907N    | DIP-14   | Frequency to voltage converter          | <b>1.31</b>        | <b>.93</b>    | <b>.87</b>    |
| 23350    | +    | LM2917N-8  | DIP-8    | Freq. to voltage conv. w/ zener         | <b>1.85</b>        | <b>1.57</b>   | <b>1.18</b>   |
| 23341    | +    | LM2917N-14 | DIP-14   | Freq. to voltage conv. w/ zener         | <b>1.69</b>        | <b>1.44</b>   | <b>1.08</b>   |
| 12079    | +    | CA3046N    | DIP-14   | NPN transistor array (ULN2046)          | .49                | .46           | .41           |
| 12159    | +    | CA3086N    | DIP-14   | Transistor array NPN (ULN2086)          | 1.29               | 1.19          | 1.09          |
| 12247    | +    | CA3162E    | DIP-16   | Dual slope & rate analog/digital conv.  | 8.95               | 8.05          | 7.25          |
| 31974    | +    | SG3524N    | DIP-16   | Regulating pulse width modulator        | .53                | .50           | .42           |
| 25275    | +    | MC4044P    | DIP-14   | Frequency phase detector                | 9.99               | 7.49          | 5.25          |
| 29372    | +    | RC4151NB   | DIP-8    | Volt to frequency converter (XR4151)    | <b>1.59</b>        | <b>1.35</b>   | <b>1.01</b>   |
| 288163   | ADI  | AD7501KN   | DIP-16   | 8-channel analog multiplexer            | <del>\$12.15</del> | <b>10.55</b>  | <b>8.97</b>   |
| 51140    | +    | 7555IPA    | DIP-8    | CMOS timer (LM555CN)                    | .33                | .31           | .29           |
| 51174    | +    | 7660CPA    | DIP-8    | CMOS volt convtr (+5 to ±5V) (M660AN)   | .75                | .68           | .59           |
| 290301   | +    | ICL7660ACP | DIP-8    | 1.5V - 12V volt converter, 10kHz, supp  | 1.35               | 1.23          | <b>.92</b>    |
| 316646   | +    | ICL7662CPA | DIP-8    | Volt converter, 20Vin, 4.5-20V out      | 2.95               | 2.75          | 2.49          |
| 51879    | +    | 8038CPD    | * DIP-14 | Precision wave form generator           | 4.95               | 4.49          | 3.95          |
| 674478   | +    | DG9431DY   | SOP-8    | Low-volt. single SPST analog switch     | <b>.97</b>         | <b>.94</b>    | <b>.80</b>    |
| 25021    | ON   | MC14411P   | DIP-24   | Bit rate frequency generator            | 4.95               | 4.79          | 4.62          |
| 25064    | ON   | MC14490P   | DIP-16   | Hex contact bounce eliminator           | 6.25               | 5.63          | 5.03          |
| 354597   | +    | MC14551N   | DIP-16   | Quad 2-ch analog multi/demultiplexer    | <b>1.20</b>        | <b>.97</b>    | <b>.73</b>    |
| 354626   | +    | MC14557    | DIP-16   | 1-64 bit variable length shift register | <b>.73</b>         | <b>.61</b>    | <b>.45</b>    |
| 241832   | ON   | MC145012   | DIP-16   | Smoke detector, photoelectric type      | 2.25               | 2.14          | 2.03          |
| 118586   | ON   | MC145151P  | DIP-28   | Parallel input PLL freq synthesizer     | 6.15               | 5.20          | 4.10          |

♦ Jameco Value Offering \*10 pcs./\*\*20 pcs. in Linear kit, below  Blue P/N = Limited Qty Available



## Linear Series

For more TI Linear  
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\* Minimum order 5 pieces

| Part No. | Cross Ref.  | Pkg.      | Description                                   | 1            | 5            | 50           |
|----------|-------------|-----------|---|--------------|--------------|--------------|
| 700605   | ULN2003ADR  | SOIC-16   | Hi-volt/curr. darl. transistor array          | <b>\$.62</b> | <b>\$.46</b> | <b>\$.34</b> |
| 700672   | ULQ2003AD   | SOIC-16   | Hi-volt/curr. darl. transistor array          | .69          | .67          | .65          |
| 700613   | ULN2004ADR  | SOIC-16   | Hi-volt/curr. darl. transistor array          | .62          | .46          | .34          |
| 700621   | ULN2004ADW  | SOIC-16   | Hi-volt/curr. darl. transistor array          | .62          | .46          | .34          |
| 700630   | ULN2004AN   | DIP-16    | Hi-volt/curr. darl. transistor array          | .62          | .46          | .34          |
| 700648   | ULN2803ADW  | SOIC-18   | Hi-volt/curr. darl. transistor array          | *            | .475         | .461         |
| 700656   | ULN2803ADWR | SOIC-18   | Hi-volt/curr. darl. transistor array          | *            | .339         | .329         |
| 700664   | ULN2803AN   | DIP-18    | Hi-volt/curr. darl. transistor array          | *            | .437         | .424         |
| 700429   | TPS54612PWP | HTSSOP-28 | 3-6V input, 6A output synch buck PWM switcher | 6.49         | 6.29         | 6.00         |
| 700437   | TPS54613PWP | HTSSOP-28 | 3-6V input, 6A output synch buck PWM switcher | 6.49         | 6.30         | 5.90         |
| 700445   | TPS54614PWP | HTSSOP-28 | 3-6V input, 6A output synch buck PWM switcher | 6.49         | 6.30         | 5.90         |
| 700453   | TPS54616PWP | HTSSOP-28 | 3-6V input, 6A output synch buck PWM switcher | 6.49         | 6.30         | 5.90         |

## Linear and Interface IC Kit **SAVE \$65**

| 10 each:   |                                   |            |                 | 84988           |  |  |  |
|--|-----------------------------------|------------|-----------------|-----------------|--|--|--|
| TL072CP, TL074CN, TL082CP, TL084CN, MAX232CPE, LM301N, LM308N, LM311N, LM337T, LF353N, LF356N, LM358N, LM386N-1, LM386N-3, LM393N, LF411CN, LF412CN, LM555CN, LM556N, LM723CN, LM1458N, DS1488N, DS1489N, ULN2003AN, ULN2803A, NE5532N, 7808T, 78L12CZ, 7815T, 7905T, 7912CT, 7915CT |                                   |            |                 |                 |  |  |  |
| 20 each:   |                                   |            |                 |                 |  |  |  |
| LM317T, LM324N, LM339N, LM741CN, LM555CN, 7805T, 78L05CZ, 7812T  |                                   |            |                 |                 |  |  |  |
| Part No.   | Description                       | Wt. (lbs.) | 1               | 10              |  |  |  |
| 84988  | 480 pcs. (40 types) analog IC kit | 6.0        | <b>\$182.95</b> | <b>\$164.65</b> |  |  |  |
| 130411   | Refill for 84988 (480 pcs.)       | 1.3        | 169.95          | 145.95          |  |  |  |



 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)



Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## Digital Potentiometers

DIP

| Part No. | Cross Ref.  | Pkg.   | Description                            | 1      | 10     | 100    |
|----------|-------------|--------|--|--------|--------|--------|
| 241744   | MCP41010-IP | DIP-8  | 10kΩ, 256 steps, SPI digital pot       | \$1.59 | \$1.49 | \$1.39 |
| 241787   | MCP41100-IP | DIP-8  | 100kΩ, 256 steps, SPI digital pot      | 1.55   | 1.47   | 1.40   |
| 241752   | MCP42010-IP | DIP-14 | 10kΩ, 256 steps, 2-ch, SPI digital pot | 2.35   | 2.21   | 2.10   |



## Pressure Sensors



Typical applications: air movement control, level indicators, leak detection, robotics and industrial controls

• To convert kPa to PSI: 1kPa = 0.1450377PSI

| Part No. | Product No. | Type* | Case Type | Pressure (kPa) | Output | Op. Volt. (VDC@mA) | 1       | 10      | 100     |
|----------|-------------|-------|-----------|----------------|--------|--------------------|---------|---------|---------|
| 320899   | MPX10DP     | —     | 344C      | 0 - 10         | 35mV   | 3 @ 6              | \$10.95 | \$10.40 | \$10.18 |
| 320987   | MPX2010DP   | D     | 344C      | 0 - 10         | 25mV   | 10 @ 6             | 14.85   | 14.07   | 13.37   |
| 321015   | MPX2010GP   | G     | 344B      | 0 - 10         | 25mV   | 10 @ 6             | 13.39   | 13.28   | 13.17   |
| 321293   | MPX5050D    | D     | 867       | 0 - 50         | 4.7V   | 5 @ 7              | 14.05   | 13.23   | 12.40   |

\* D = differential; G = gauge



## Hall-Effect Sensors

SIP-3

| Part No. | Cross Ref. | Pkg.  | Description                                 | 1      | 10     | 100    |
|----------|------------|-------|---|--------|--------|--------|
| 319089   | ATS137M    | SIP-3 | Hall-effect switch 25mA, 20V max, ext. temp | \$1.75 | \$1.52 | \$1.28 |
| 319100   | AH182PL    | SIP-3 | Hall-effect switch 25mA, low power          | .83    | .57    | .44    |

## Temperature Sensors

Package (see pg 33)

| Part No. | Mfr. | Cross Ref. | Pkg.     | Description                          | 1      | 10     | 100    |
|----------|------|------------|----------|--------------------------------------|--------|--------|--------|
| 107094   | NSC  | LM34CZ     | TO-92    | Prec temp sensor (-40° to +230°F)    | \$4.89 | \$4.52 | \$4.19 |
| 193480   | NSC  | LM34DM     | SOIC-8   | Prec temp sensor (-55° to 300°F)     | 1.85   | 1.57   | 1.18   |
| 155192   | NSC  | LM34DZ     | TO-92    | Prec temp sensor (+32° to +212°F)    | 1.99   | 1.67   | 1.23   |
| 192217   | NSC  | LM35DT     | TO-220/3 | Prec temp sensor (-55° to 150°C)     | 2.35   | 2.00   | 1.50   |
| 107107   | NSC  | LM35CZ     | TO-92    | Prec temp sensor (-40° to 110°C)     | 4.39   | 3.37   | 2.52   |
| 155740   | NSC  | LM35DZ     | TO-92    | Prec temp sensor (0° to +100°C)      | 1.79   | 1.35   | 1.25   |
| 278387   | ADI  | TMP36GT9   | TO-92    | Low voltage temp sensor              | 1.00   | .92    | .82    |
| 282028   | +    | LM135H     | TO-46    | Precision temperature sensor         | 8.25   | 7.57   | 6.89   |
| 120820   | +    | LM335AZ    | TO-92    | Precision temperature sensor         | .81    | .75    | .71    |
| 23755    | +    | LM335Z     | TO-92    | Volt mode temperature sensor         | .67    | .61    | .44    |
| 241939   | +    | AD590JH    | TO-52/3  | Two terminal IC temp transducer      | 6.85   | 6.49   | 6.19   |
| 313306   | +    | AD594AQ    | DIP-14   | Thermocouple amp for iron-constantan | 12.99  | 11.69  | 10.53  |
| 313293   | +    | AD595AO    | DIP-14   | Thermocouple amp for chromel-alumel  | 13.55  | 11.89  | 10.52  |

◆ Jameco Value Offering

## NPN Bipolar Transistors

Package (see pg 33)

| Part No. | Product No. | Mfr. | Pkg.    | Desc. | V <sub>CEO</sub> Min. | (h <sub>FE</sub> @ Ic) | 1      | 10     | 100    | 1000 |
|----------|-------------|------|---------|-------|-----------------------|------------------------|--------|--------|--------|------|
| 26489    | MPSA13      | +    | TO-92   | NPN   | 30                    | 5k @ .01A              | \$.059 | \$.034 | \$.028 |      |
| 210593   | MPSA14      | +    | TO-92   | NPN   | 30                    | 20k @ .10A             | .083   | .067   | .038   |      |
| 210681   | MPSA18      | +    | TO-92   | NPN   | 45                    | 500 @ .001A            | .083   | .066   | .049   |      |
| 33021    | TIP29A      | FSC  | TO-220  | NPN   | 60                    | 15 @ 1A                | .39    | .34    | .32    | .257 |
| 297781   | TIP29C      | +    | TO-220  | NPN   | 100                   | 40 @ .2A               | .25    | .225   | .18    | .138 |
| 33048    | TIP31A      | +    | TO-220  | NPN   | 60                    | 10 @ 3A                | .49    | .39    | .35    | .29  |
| 179354   | TIP31C      | FSC  | TO-220  | NPN   | 100                   | 10 @ 3A                | .49    | .37    | .30    | .18  |
| 33081    | TIP41A      | +    | TO-220  | NPN   | 60                    | 15 @ 3A                | .59    | .531   | .425   | .319 |
| 179371   | TIP41C      | FSC  | TO-220  | NPN   | 100                   | 15 @ 3A                | .29    | .258   | .206   | .155 |
| 178546   | MPSA42      | +    | TO-92   | NPN   | 30                    | 40 @ .03A              | .081   | .075   | .06    |      |
| 120221   | BPW77NA     | +    | TO-18   | NPN   | 70                    | —                      | 1.99   | 1.89   | 1.55   | 1.21 |
| 32977    | TIP102      | +    | TO-220  | NPN   | 100                   | 1k @ 3A                | .57    | .49    | .41    | .245 |
| 179240   | TIP102      | FSC  | TO-220  | NPN   | 100                   | 1k @ 3A                | .38    | .32    | .30    | .29  |
| 288471   | TIP110      | +    | TO-220  | NPN   | 60                    | 1k @ 1A                | .39    | .36    | .32    | .27  |
| 32993    | TIP120      | +    | TO-220  | NPN   | 60                    | 1k @ 3A                | .49    | .45    | .39    | .27  |
| 179291   | TIP120      | FSC  | TO-220  | NPN   | 60                    | 1k @ 3A                | .54    | .47    | .40    | .30  |
| 288585   | TIP121      | +    | TO-220  | NPN   | 80                    | 1k @ .5A               | .34    | .306   | .245   | .184 |
| 120416   | TIP122      | +    | TO-220  | NPN   | 100                   | 1k @ 3A                | .42    | .37    | .35    | .26  |
| 179303   | TIP122      | FSC  | TO-220  | NPN   | 100                   | 1k @ 3A                | .55    | .42    | .32    | .195 |
| 254810   | BC337       | +    | TO-92   | NPN   | 45                    | 100 @ .10A             | .061   | .049   | .037   |      |
| 211529   | MJE340      | +    | TO-225  | NPN   | 300                   | 30 @ .05A              | .27    | .24    | .21    | .155 |
| 255994   | BU406       | +    | TO-220  | NPN   | 200                   | —                      | .56    | .504   | .403   | .302 |
| 254801   | BC547B      | +    | TO-92   | NPN   | 45                    | 330 @ .002A            | .075   | .06    | .045   |      |
| 254799   | BC547C      | FSC  | TO-92   | NPN   | 45                    | 600 @ .002A            | .08    | .064   | .048   |      |
| 309825   | BD681       | +    | TO-225  | NPN   | 100                   | 750 @ 2A               | .26    | .234   | .187   | .14  |
| 211553   | MJE800      | +    | TO-225  | NPN   | 60                    | 750 @ 1.5A             | .29    | .27    | .24    | .21  |
| 38228    | 2N2219A     | +    | TO-39   | NPN   | 40                    | 100 @ .15A             | .41    | .37    | .31    | .28  |
| 26446    | MPQ2222     | +    | DIP-14  | NPN   | 40                    | 100 @ .15A             | 2.79   | 2.52   | 2.29   | 2.13 |
| 28628    | PN2222      | +    | TO-92   | NPN   | 30                    | 100 @ .15A             | .065   | .041   | .025   |      |
| 213938   | MMBT2222A   | +    | SOT-23  | NPN   | 40                    | 100 @ .15A             | .04    | .03    | .022   |      |
| 213997   | MMPQ2222A   | +    | SOIC-16 | NPN   | 40                    | 100 @ .15A             | .94    | .81    | .72    | .54  |
| 210673   | MPS2222A    | +    | TO-92   | NPN   | 40                    | 40 @ .50A              | .057   | .041   | .034   |      |
| 178511   | PN2222A     | +    | TO-92   | NPN   | 40                    | 100 @ .15A             | .13    | .092   | .051   |      |
| 38236    | 2N2222A     | +    | TO-18   | NPN   | 40                    | 100 @ .15A             | .39    | .35    | .29    | .25  |
| 38295    | 2N3053      | +    | TO-39   | NPN   | 40                    | 25 @ .15A              | .47    | .43    | .344   | .258 |
| 211385   | TIP3055     | +    | TO-218  | NPN   | 60                    | 5 @ .001A              | 1.05   | .94    | .76    | .57  |
| 38308    | 2N3055      | +    | TO-3    | NPN   | 60                    | 15 @ 10A               | .95    | .85    | .72    | .63  |
| 211406   | 2N3055A     | +    | TO-3    | NPN   | 60                    | 20 @ 4A                | 1.55   | 1.49   | 1.13   | .98  |
| 25857    | MJE3055T    | +    | TO-220  | NPN   | 60                    | 20 @ 4A                | .53    | .49    | .45    | .39  |
| 194415   | 2N3439      | +    | TO-39   | NPN   | 350                   | 40 @ .02A              | .53    | .50    | .48    | .36  |
| 209242   | 2N3771      | +    | TO-3    | NPN   | 40                    | 15 @ 15A               | 1.69   | 1.57   | 1.47   | 1.21 |
| 38324    | 2N3772      | +    | TO-3    | NPN   | 40                    | 15 @ 10A               | 2.49   | 2.05   | 1.79   | 1.15 |
| 140151   | 2N3773      | +    | TO-3    | NPN   | 140                   | 15 @ 8A                | 2.45   | 2.32   | 2.26   | 1.69 |
| 94967    | MMBT3904    | +    | SOT-23  | NPN   | 40                    | 100 @ .01A             | .042   | .034   | .025   |      |
| 38359    | 2N3904      | +    | TO-92   | NPN   | 40                    | 100 @ .01A             | .069   | .057   | .035   |      |
| 178597   | 2N3904A     | FSC  | TO-92   | NPN   | 40                    | 100 @ .01A             | .09    | .06    | .045   |      |
| 38421    | 2N4401      | +    | TO-92   | NPN   | 40                    | 100 @ .15A             | .08    | .06    | .05    |      |
| 310666   | 2N5038      | +    | TO-3    | NPN   | 150                   | 20 @ 12A               | 6.89   | 6.20   | 4.96   | 3.72 |
| 140373   | 2N5179      | +    | TO-72   | NPN   | 12                    | 25 @ .003A             | .59    | .56    | .512   | .482 |

◆ Jameco Value Offering \*10 pcs. in Transistor cabinet kit, right

◆ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

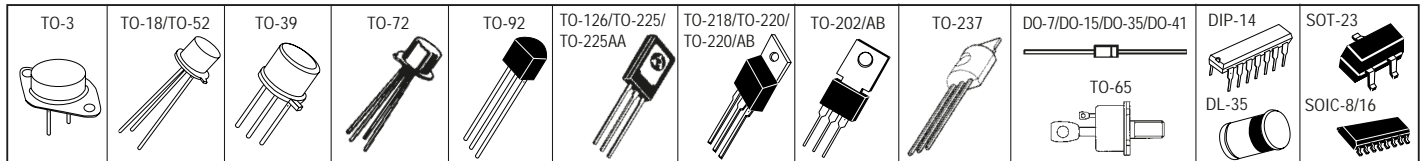
## NPN Bipolar Transistors

Package (see pg 33)

\* Minimum order 10 pieces

| Part No. | Product No. | Mfr. | Pkg.    | Desc. | V <sub>ceo</sub> | Min. (h <sub>FE</sub> @ Ic) | 1          | 10      | 100     | 1000    |
|----------|-------------|------|---------|-------|------------------|-----------------------------|------------|---------|---------|---------|
| 26489    | MPSA13⊕*    | ✦    | TO-92   | NPN   | 30               | 5k @ .01A                   | ..... *    | \$ .059 | \$ .034 | \$ .028 |
| 210593   | MPSA14⊕     | ✦    | TO-92   | NPN   | 30               | 20k @ .10A                  | ..... *    | .083    | .067    | .038    |
| 210681   | MPSA18⊕     | ✦    | TO-92   | NPN   | 45               | 500 @ .001A                 | ..... *    | .083    | .066    | .049    |
| 33021    | TIP29A⊕     | FSC  | TO-220  | NPN   | 60               | 15 @ 1A                     | ..... .39  | .34     | .32     | .257    |
| 297781   | TIP29C⊕     | ✦    | TO-220  | NPN   | 100              | 40 @ .2A                    | ..... .25  | .225    | .18     | .138    |
| 33048    | TIP31A⊕*    | ✦    | TO-220  | NPN   | 60               | 10 @ 3A                     | ..... .49  | .39     | .35     | .29     |
| 179354   | TIP31C⊕     | FSC  | TO-220  | NPN   | 100              | 10 @ 3A                     | ..... .49  | .37     | .30     | .18     |
| 33081    | TIP41A⊕     | ✦    | TO-220  | NPN   | 60               | 15 @ 3A                     | ..... .59  | .531    | .425    | .319    |
| 179371   | TIP41C⊕     | FSC  | TO-220  | NPN   | 100              | 15 @ 3A                     | ..... .29  | .258    | .206    | .155    |
| 178546   | MPSA42⊕     | ✦    | TO-92   | NPN   | 30               | 40 @ .03A                   | ..... *    | .081    | .075    | .06     |
| 120221   | BPW77NA     | ✦    | TO-18   | NPN   | 70               | —                           | ..... 1.99 | 1.89    | 1.55    | 1.21    |
| 32977    | TIP102⊕*    | ✦    | TO-220  | NPN   | 100              | 1k @ 3A                     | ..... .57  | .49     | .41     | .245    |
| 179240   | TIP102⊕     | FSC  | TO-220  | NPN   | 100              | 1k @ 3A                     | ..... .38  | .32     | .30     | .29     |
| 288471   | TIP110⊕     | ✦    | TO-220  | NPN   | 60               | 1k @ 1A                     | ..... .39  | .36     | .32     | .27     |
| 32993    | TIP120⊕*    | ✦    | TO-220  | NPN   | 60               | 1k @ 3A                     | ..... .49  | .45     | .39     | .27     |
| 179291   | TIP120⊕     | FSC  | TO-220  | NPN   | 60               | 1k @ 3A                     | ..... .54  | .47     | .40     | .30     |
| 288585   | TIP121⊕     | ✦    | TO-220  | NPN   | 80               | 1k @ .5A                    | ..... .34  | .306    | .245    | .184    |
| 120416   | TIP122⊕     | ✦    | TO-220  | NPN   | 100              | 1k @ 3A                     | ..... .42  | .37     | .35     | .26     |
| 179303   | TIP122⊕     | FSC  | TO-220  | NPN   | 100              | 1k @ 3A                     | ..... .55  | .42     | .32     | .195    |
| 254810   | BC337⊕      | ✦    | TO-92   | NPN   | 45               | 100 @ .10A                  | ..... *    | .061    | .049    | .037    |
| 211529   | MJE340⊕     | ✦    | TO-225  | NPN   | 300              | 30 @ .05A                   | ..... .27  | .24     | .21     | .155    |
| 255994   | BU406⊕      | ✦    | TO-220  | NPN   | 200              | —                           | ..... .56  | .504    | .403    | .302    |
| 254801   | BC547B⊕     | ✦    | TO-92   | NPN   | 45               | 330 @ .002A                 | ..... *    | .075    | .06     | .045    |
| 254799   | BC547C⊕     | FSC  | TO-92   | NPN   | 45               | 600 @ .002A                 | ..... *    | .08     | .064    | .048    |
| 309825   | BD681⊕      | ✦    | TO-225  | NPN   | 100              | 750 @ 2A                    | ..... .26  | .234    | .187    | .14     |
| 211553   | MJE800⊕     | ✦    | TO-225  | NPN   | 60               | 750 @ 1.5A                  | ..... .29  | .27     | .24     | .21     |
| 38228    | 2N2219A⊕    | ✦    | TO-39   | NPN   | 40               | 100 @ .15A                  | ..... .41  | .37     | .31     | .28     |
| 26446    | MPQ2222     | ✦    | DIP-14  | NPN   | 40               | 100 @ .15A                  | ... 2.79   | 2.52    | 2.29    | 2.13    |
| 28628    | PN2222⊕     | ✦    | TO-92   | NPN   | 30               | 100 @ .15A                  | ..... *    | .065    | .041    | .025    |
| 213938   | MMBT2222A   | ✦    | SOT-23  | NPN   | 40               | 100 @ .15A                  | ..... *    | .04     | .03     | .022    |
| 213997   | MMPQ2222A⊕  | ✦    | SOIC-16 | NPN   | 40               | 100 @ .15A                  | ..... .94  | .81     | .72     | .54     |
| 210673   | MPS2222A⊕   | ✦    | TO-92   | NPN   | 40               | 40 @ .50A                   | ..... *    | .057    | .041    | .034    |
| 178511   | PN2222A⊕    | ✦    | TO-92   | NPN   | 40               | 100 @ .15A                  | ..... *    | .13     | .092    | .051    |
| 38236    | 2N2222A⊕*   | ✦    | TO-18   | NPN   | 40               | 100 @ .15A                  | ..... .39  | .35     | .29     | .25     |
| 38295    | 2N3053⊕*    | ✦    | TO-39   | NPN   | 40               | 25 @ .15A                   | ..... .47  | .43     | .344    | .258    |
| 211385   | TIP3055⊕    | ✦    | TO-218  | NPN   | 60               | 5 @ .001A                   | 1.05       | .94     | .76     | .57     |
| 38308    | 2N3055⊕*    | ✦    | TO-3    | NPN   | 60               | 15 @ 10A                    | ..... .95  | .85     | .72     | .63     |
| 211406   | 2N3055A⊕    | ✦    | TO-3    | NPN   | 60               | 20 @ 4A                     | ..... 1.55 | 1.49    | 1.13    | .98     |
| 25857    | MJE3055T⊕   | ✦    | TO-220  | NPN   | 60               | 20 @ 4A                     | ..... .53  | .49     | .45     | .39     |
| 194415   | 2N3439⊕     | ✦    | TO-39   | NPN   | 350              | 40 @ .02A                   | ..... .53  | .50     | .48     | .36     |
| 209242   | 2N3771⊕     | ✦    | TO-3    | NPN   | 40               | 15 @ 15A                    | .... 1.69  | 1.57    | 1.47    | 1.21    |
| 38324    | 2N3772⊕     | ✦    | TO-3    | NPN   | 40               | 15 @ 10A                    | .... 2.49  | 2.05    | 1.79    | 1.15    |
| 140151   | 2N3773⊕     | ✦    | TO-3    | NPN   | 140              | 15 @ 8A                     | ..... 2.45 | 2.32    | 2.26    | 1.69    |
| 94967    | MMBT3904⊕   | ✦    | SOT-23  | NPN   | 40               | 100 @ .01A                  | ..... *    | .042    | .034    | .025    |
| 38359    | 2N3904⊕**   | ✦    | TO-92   | NPN   | 40               | 100 @ .01A                  | ..... *    | .069    | .057    | .035    |
| 178597   | 2N3904⊕     | FSC  | TO-92   | NPN   | 40               | 100 @ .01A                  | ..... *    | .09     | .06     | .045    |
| 38421    | 2N4401⊕*    | ✦    | TO-92   | NPN   | 40               | 100 @ .15A                  | ..... *    | .08     | .06     | .05     |
| 310666   | 2N5038⊕     | ✦    | TO-3    | NPN   | 150              | 20 @ 12A                    | ..... 6.89 | 6.20    | 4.96    | 3.72    |
| 140373   | 2N5179⊕     | ✦    | TO-72   | NPN   | 12               | 25 @ .003A                  | .... .59   | .56     | .512    | .48     |

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.



| Manufacturer Cross Reference Table |      |                         |      |                   |      | Jameco Value Offering  |      |
|------------------------------------|------|-------------------------|------|-------------------|------|------------------------|------|
| Manufacturer                       | Code | Manufacturer            | Code | Manufacturer      | Code | Manufacturer           | Code |
| Analog Devices                     | ADI  | Fairchild Semiconductor | FSC  | Maxim Corporation | MAX  | National Semiconductor | NSC  |
| Anachip                            | ANA  | Linear Technology       | LTC  | Microchip         | MCH  | On Semi                | ON   |
|                                    |      |                         |      |                   |      | ST Micro               | ST   |
|                                    |      |                         |      |                   |      | Texas Instruments      | TI   |

**NPN Bipolar Transistors (Continued)**

Package (see above)

| Part No. | Product No. | Mfr. | Pkg.   | Desc. | V <sub>ceo</sub> Min. | (h <sub>FE</sub> @ Ic) | 1      | 10     | 100    | 1000   |
|----------|-------------|------|--------|-------|-----------------------|------------------------|--------|--------|--------|--------|
| 254764   | 2N5886      | +    | TO-3   | NPN   | 80                    | 20 @ 10A               | \$2.29 | \$2.06 | \$1.65 | \$1.24 |
| 194589   | 2N6045      | +    | TO-220 | NPN   | 100                   | 1k @ 3A                | .37    | .34    | .29    | .28    |
| 194600   | 2N6059      | +    | TO-3   | NPN   | 100                   | 750 @ 6A               | 1.69   | 1.65   | 1.62   | 1.58   |
| 255011   | 2N6292      | +    | TO-220 | NPN   | 70                    | 30 @ 2A                | .57    | .52    | .44    | .33    |
| 255003   | 2N6427      | +    | TO-92  | NPN   | 40                    | 10k @ .01A             | .30    | .203   | .103   | .078   |
| 194618   | 2N6547      | +    | TO-3   | NPN   | 400                   | 12 @ 5A                | 3.15   | 2.84   | 2.66   | 2.42   |
| 194626   | 2N6678      | +    | TO-3   | NPN   | 400                   | 8 @ 15A                | 6.79   | 6.11   | 4.89   | 3.67   |

+ Jameco Value Offering FSC = Fairchild Semiconductor

**PNP Bipolar Transistors**

Package (see above)

| * Minimum order 10 pieces |             |      |        |       |                       |                        |        |        |         |         |
|---------------------------|-------------|------|--------|-------|-----------------------|------------------------|--------|--------|---------|---------|
| Part No.                  | Product No. | Mfr. | Pkg.   | Desc. | V <sub>ceo</sub> Min. | (h <sub>FE</sub> @ Ic) | 1      | 10     | 100     | 1000    |
| 33030                     | TIP30A      | +    | TO-220 | PNP   | 60                    | 15 @ 1A                | \$ .56 | \$ .33 | \$ .311 | \$ .233 |
| 33064                     | TIP32A      | +    | TO-220 | PNP   | 60                    | 10 @ 3A                | .37    | .335   | .285    | .23     |
| 181841                    | TIP32C      | +    | TO-220 | PNP   | 100                   | 10 @ 3A                | .27    | .24    | .22     | .165    |
| 33101                     | TIP42A      | +    | TO-220 | PNP   | 60                    | 15 @ 3A                | .42    | .39    | .36     | .27     |
| 139580                    | TIP42C      | +    | TO-220 | PNP   | 100                   | 15 @ 3A                | .39    | .28    | .25     | .20     |
| 178554                    | MPSA92      | +    | TO-92  | PNP   | 300                   | 25 @ .003A             | 1.08   | .076   | .052    |         |
| 32985                     | TIP106      | +    | TO-220 | PNP   | 80                    | 1k @ 3A                | .64    | .58    | .52     | .442    |
| 179258                    | TIP107      | +    | TO-220 | PNP   | 100                   | 1k @ 3A                | .49    | .39    | .353    | .255    |
| 288526                    | TIP115      | +    | TO-220 | PNP   | 60                    | 1k @ 1A                | .31    | .302   | .294    | .218    |
| 33013                     | TIP125      | +    | TO-220 | PNP   | 60                    | 1k @ 3A                | .49    | .45    | .29     | .26     |
| 179320                    | TIP127      | FSC  | TO-220 | PNP   | 100                   | 1k @ 3A                | .45    | .40    | .32     | .24     |
| 211537                    | MJE350      | +    | TO-225 | PNP   | 300                   | 30 @ .05A              | .41    | .37    | .33     | .29     |
| 211545                    | MJE700      | +    | TO-225 | PNP   | 60                    | 750 @ 1.5A             | .25    | .22    | .20     | .17     |
| 194378                    | 2N2905A     | +    | TO-39  | PNP   | 60                    | 100 @ .15A             | .45    | .43    | .41     | .31     |
| 26454                     | MPQ2907     | +    | DIP-14 | PNP   | 40                    | 100 @ .15A             | 2.19   | 1.85   | 1.35    | .99     |
| 28644                     | PN2907      | +    | TO-92  | PNP   | 40                    | 100 @ .15A             | 1.25   | .09    | .045    |         |
| 211342                    | MPS2907A    | +    | TO-92  | PNP   | 60                    | 100 @ .15A             | .057   | .051   | .04     |         |
| 178520                    | PN2907A     | +    | TO-92  | PNP   | 60                    | 100 @ .15A             | .098   | .064   | .058    |         |
| 38279                     | 2N2907A     | +    | TO-18  | PNP   | 60                    | 100 @ .15A             | .32    | .30    | .28     | .23     |
| 25831                     | MJE2955T    | +    | TO-220 | PNP   | 60                    | 20 @ 4A                | .53    | .375   | .361    | .272    |
| 38375                     | 2N3906      | +    | TO-92  | PNP   | 40                    | 100 @ .01A             | .05    | .04    | .03     |         |
| 178618                    | 2N3906      | FSC  | TO-92  | PNP   | 40                    | 100 @ .01A             | .046   | .042   | .033    |         |
| 38447                     | 2N4403      | +    | TO-92  | PNP   | 40                    | 100 @ .15A             | .05    | .049   | .036    |         |
| 253438                    | 2N5884      | +    | TO-3   | PNP   | 80                    | 4 @ 25A                | 2.75   | 2.34   | 1.56    | 1.40    |
| 194571                    | 2N6042      | +    | TO-220 | PNP   | 100                   | 1k @ 3A                | .55    | .495   | .396    | .372    |
| 194597                    | 2N6052      | +    | TO-3   | PNP   | 100                   | 750 @ 6A               | 1.75   | 1.69   | 1.64    | 1.47    |

+ Jameco Value Offering FSC = Fairchild Semiconductor

\* 10 pcs. / \*\* 100 pcs. in Transistor cabinet kit, pg 32

**J-FETs**

Package (see above)

| * Minimum order 10 pieces |             |      |       |       |  |  |         |        |        |      |
|---------------------------|-------------|------|-------|-------|--|--|---------|--------|--------|------|
| Part No.                  | Product No. | Mfr. | Pkg.  | Desc. | BV <sub>GS</sub> @ I <sub>G</sub> (μA) | I <sub>SS</sub> (mA) @ V <sub>DS</sub> | 1       | 10     | 100    | 1000 |
| 26403                     | MPF102      | +    | TO-92 | N-Ch  | -25 @ -10                              | 2 @ 15                                 | \$ .155 | \$ .11 | \$ .08 |      |
| 253948                    | 2N5457      | +    | TO-92 | N-Ch  | -25 @ -10                              | 1 @ 15                                 | .20     | .18    | .126   | .102 |
| 253921                    | 2N5458      | +    | TO-92 | N-Ch  | -25 @ -10                              | 2 @ 15                                 | .29     | .261   | .209   | .157 |
| 253884                    | 2N5484      | +    | TO-92 | N-Ch  | -25 @ -1                               | 1 @ 15                                 | .29     | .26    | .208   | .156 |
| 253585                    | 2N5485      | +    | TO-92 | N-Ch  | -25 @ -1                               | 4 @ 15                                 | * .116  | .104   | .094   |      |
| 253577                    | 2N5486      | +    | TO-92 | N-Ch  | -25 @ -1                               | 8 @ 15                                 | .26     | .23    | .19    | .14  |
| 253542                    | 2N5639      | +    | TO-92 | N-Ch  | -30 @ -10                              | 25 @ 20                                | .21     | .034   | .031   | .028 |
| 38527                     | 2N5951      | +    | TO-92 | N-Ch  | -30 @ -1                               | 7 @ 15                                 | .69     | .64    | .44    | .39  |
| 253913                    | 2N5460      | +    | TO-92 | P-Ch  | 40 @ 10                                | -1 @ -15                               | .38     | .339   | .271   | .203 |
| 253892                    | 2N5462      | +    | TO-92 | P-Ch  | 40 @ 10                                | -4 @ -15                               | * .089  | .081   | .073   |      |

+ Jameco Value Offering \* 10 pcs. in Transistor cabinet kit, pg 32

**Heat Sinks**

For more Aavid Thermalloy Heat Sinks visit [www.Jameco.com](http://www.Jameco.com)



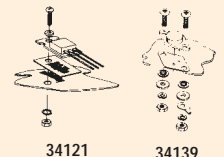
\* Minimum order 5 pieces

| Part No. | Product No.   | Type          | Size (L" x W" x H") | 1     | 5      | 50     | 250   |
|----------|---------------|---------------|---------------------|-------|--------|--------|-------|
| 696600   | 507222B00000G | Dual TO-220   | 1.47 x 1.75 x .375  | \$.39 | \$.381 | \$.375 | \$.37 |
| 696618   | 529802B02500A | TO-220        | 1.50 x 1.65 x 1.00  | 1.26  | 1.17   | 1.14   | 1.13  |
| 696626   | 530002B02500A | TO-220        | 2.52 x 1.65 x 1.00  | 1.45  | 1.33   | 1.31   | 1.29  |
| 696693   | 573300D00000A | SMD           | 0.50 x 1.03 x 0.40  | .63   | .57    | .45    | .463  |
| 696706   | 576802B04000A | TO-220/TO-262 | 0.75 x 0.57 x 0.50  | .53   | .475   | .461   | .447  |
| 696714   | 577002B00000G | TO-220        | 0.75 x 0.52 x 0.25  | *.242 | .235   | .228   |       |
| 696722   | 581002B02500G | TO-220        | 1.00 x 0.64 x 0.64  | 1.19  | 1.07   | 1.04   | 1.02  |
| 696731   | 6025B-TT      | TO-220        | 1.25 x .875 x 0.25  | 1.79  | 1.62   | 1.29   | 1.27  |
| 696749   | 6025D         | TO-220        | 1.25 x .875 x 0.25  | .95   | .93    | .90    | .87   |
| 696765   | 7109DG        | SMD           | .763 x 1.00 x 0.45  | .92   | .85    | .84    | .85   |

**Heat Sink Mounting Kits**

- TO-3 and TO-220 heat sink insulator assemblies
- 10 kits per pack

| Part No. | Type   | Description    | 1      | 10     | 100    |
|----------|--------|----------------|--------|--------|--------|
| 34121    | TO-220 | 5 pcs per kit  | \$3.95 | \$3.55 | \$3.19 |
| 34139    | TO-3   | 12 pcs per kit | 3.95   | 3.59   | 3.25   |



Committed to You

We're committed to providing you with the best service in the industry.

+ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

 RoHS compliant product
 This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.
 [Details on page 1.](#)

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |



JAMECO ValuePro

## Heat Sinks

A Jameco  
EXCLUSIVE

Our TO-3 & TO-220 heat sinks are made from black anodized aluminum (except for P/N 107297 which is light weight aluminum). They can be mounted horizontally or vertically depending on your applications. P/N 42622 and 228005 can be mounted vertically with solderable mounting tabs.



Blue Part No. = Limited Quantity Available

| Part No. | Cross Ref. No.  | Type   | Size (L" x W" x H") | 1    | 10   | 100  | 1000 |
|----------|-----------------|--------|---------------------|------|------|------|------|
| 326668   | 577500B00000    | TO-126 | —                   | .33  | .297 | .27  | .243 |
| 326633   | 577304B00000    | TO-202 | 0.52 x 0.38 x 0.75  | .29  | .261 | .209 | .196 |
| 326684   | 566010B03400    | TO-218 | 1.00 x 0.51 x 1.22  | .99  | .89  | .76  | .68  |
| 326756   | 529801B02500    | TO-218 | 1.64 x 0.98 x 1.51  | 1.02 | .98  | .83  | .71  |
| 326772   | 530101B00150    | TO-218 | 1.75 x 0.49 x 1.75  | 1.11 | 1.09 | .94  | .79  |
| 320320   | BK-ALU-0034-001 | TO-220 | 1.80 x 1.50 x 0.40  | .30  | .285 | .279 | .209 |
| 326596   | 507302B00000    | TO-220 | 0.75 x 0.38 x 0.74  | .25  | .23  | .20  | .18  |
| 326609   | 577002B00000    | TO-220 | 0.51 x 0.25 x 0.75  | .30  | .23  | .215 | .20  |
| 326617   | 577102B00000    | TO-220 | 0.52 x 0.37 x 0.75  | .33  | .293 | .264 | .238 |
| 326625   | 577202B00000    | TO-220 | 0.51 x 0.49 x 0.75  | .27  | .23  | .215 | .20  |
| 326641   | 577002B04000    | TO-220 | 0.53 x 0.50 x 0.76  | .30  | .27  | .241 | .235 |
| 326650   | 577102B04000    | TO-220 | 0.52 x 0.38 x 0.75  | .30  | .27  | .253 | .235 |
| 326676   | 593002B03400    | TO-220 | —                   | .52  | .482 | .416 | .31  |
| 326693   | 531002B05200    | TO-220 | 1.38 x 0.50 x 1.00  | .84  | .75  | .65  | .495 |
| 326713   | 531102B02500    | TO-220 | 1.38 x 0.50 x 1.51  | .86  | .80  | .68  | .58  |
| 326748   | 531202B02500    | TO-220 | 1.37 x 0.49 x 2.00  | .95  | .86  | .68  | .531 |
| 326764   | 531302B02500    | TO-220 | 1.38 x 0.50 x 2.50  | .92  | .90  | .77  | .65  |

## Other Manufacturers — Great Deals



| Part No. | Cross Ref. No.     | Type   | Size (L" x W" x H") | 1      | 10     | 100    | 1000   |
|----------|--------------------|--------|---------------------|--------|--------|--------|--------|
| 16512    | DUDE4              | TO-3   | 4.80 x 1.50 x 1.30  | \$2.95 | \$2.75 | \$2.49 | \$2.25 |
| 151547   | 635-125B2          | TO-3   | 1.90 x 1.40 x 1.30  | 1.05   | .92    | .78    | .70    |
| 189835   | 635-5B2            | TO-3   | 1.90 x 1.40 x 0.50  | .87    | .78    | .63    | .55    |
| 70914    | THM6106            | TO-220 | 1.20 x 1.00 x 0.50  | .35    | .30    | .28    | .26    |
| 129242   | THM6106            | TO-220 | 1.20 x 1.00 x 0.50  | .49    | .45    | .39    | .35    |
| 42622    | 563002B00000       | TO-220 | 1.20 x 1.00 x 0.50  | .35    | .291   | .281   | .271   |
| 228005   | BK-1220            | TO-220 | 1.20 x 1.00 x 0.50  | .35    | .30    | .23    | .19    |
| 40504    | 291-H-36AB         | TO-220 | 0.90 x 1.00 x 0.40  | .74    | .534   | .459   | .402   |
| 158051   | 577102B00000       | TO-220 | 0.75 x 0.52 x 0.38  | .39    | .35    | .28    | .21    |
| 70658    | THM6073            | TO-220 | 0.80 x 0.70 x 0.40  | .29    | .269   | .26    | .25    |
| 107297   | PSC2-U (cup-style) | TO-220 | 0.80 x 1.00 x 0.40  | .49    | .44    | .35    | .26    |

## N-Channel &amp; P-Channel MOSFETs

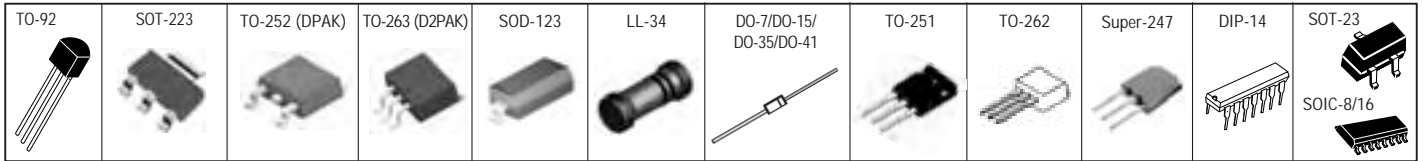
Package (see pg 35)

\* Minimum order 10 pieces

| Part No. | Product No. | Mfr. | Pkg.     | Desc. | BV <sub>DS</sub> | Min. On-St.<br>DS Current | 1    | 10   | 100  | 1000 |
|----------|-------------|------|----------|-------|------------------|---------------------------|------|------|------|------|
| 669821   | IRFD014     | ♦    | DIP-4    | N-Ch  | 60               | 1.7A                      | .35  | .33  | .31  | .28  |
| 669839   | IRFL014     | ♦    | SOT-223  | N-Ch  | 60               | 2.7A                      | .49  | .41  | .37  | .31  |
| 669847   | IRLD014     | ♦    | DIP-4    | N-Ch  | 60               | 1.7A                      | .45  | .36  | .33  | .29  |
| 669855   | IRLL014N    | ♦    | SOT-223  | N-Ch  | 55               | 2.8A                      | .55  | .46  | .33  | .29  |
| 669863   | IRFBG20     | ♦    | TO-220AB | N-Ch  | 1000             | 1.4A                      | 1.17 | .94  | .84  | .70  |
| 669871   | IRFZ24N     | ♦    | TO-220AB | N-Ch  | 55               | 17A                       | .54  | .43  | .39  | .33  |
| 669880   | IRLR024N    | ♦    | TO-252AA | N-Ch  | 55               | 17A                       | .55  | .50  | .47  | .43  |
| 669898   | IRLU024N    | ♦    | TO-251AA | N-Ch  | 55               | 17A                       | .65  | .53  | .47  | .38  |
| 669901   | IRLZ24N     | ♦    | TO-220AB | N-Ch  | 55               | 18A                       | .53  | .42  | .37  | .32  |
| 669919   | IRFBE30     | ♦    | TO-220AB | N-Ch  | 800              | 4.1A                      | 1.10 | .89  | .81  | .77  |
| 669927   | IRFBG30     | ♦    | TO-220AB | N-Ch  | 1000             | 3.1A                      | 1.35 | 1.09 | .96  | .80  |
| 669935   | IRFZ34N     | ♦    | TO-220AB | N-Ch  | 55               | 26A                       | .49  | .39  | .35  | .29  |
| 669943   | IRLZ34N     | ♦    | TO-220AB | N-Ch  | 55               | 30A                       | .57  | .54  | .50  | .46  |
| 669951   | IRFZ44N     | ♦    | TO-220AB | N-Ch  | 55               | 49A                       | .65  | .51  | .46  | .39  |
| 669960   | IRFZ44NS    | ♦    | D2-Pack  | N-Ch  | 55               | 49A                       | 1.05 | .82  | .58  | .55  |
| 669978   | IRFZ46N     | ♦    | TO-220AB | N-Ch  | 55               | 53A                       | .82  | .78  | .73  | .59  |
| 669986   | IRFZ48N     | ♦    | TO-220AB | N-Ch  | 55               | 64A                       | .82  | .66  | .59  | .49  |
| 669994   | IRFD110     | ♦    | DIP-4    | N-Ch  | 100              | 1.0A                      | .47  | .42  | .35  | .29  |
| 670004   | IRFL110     | ♦    | SOT-223  | N-Ch  | 100              | 1.5A                      | .45  | .36  | .32  | .27  |
| 670012   | IRFD120     | ♦    | DIP-4    | N-Ch  | 100              | 1.3A                      | .66  | .58  | .52  | .43  |
| 670021   | IRFR120N    | ♦    | TO-252AA | N-Ch  | 100              | 9.4A                      | .45  | .42  | .39  | .32  |
| 670039   | IRLD120     | ♦    | DIP-4    | N-Ch  | 100              | 1.3A                      | .45  | .41  | .38  | .35  |
| 670047   | IRLR120N    | ♦    | TO-252AA | N-Ch  | 100              | 10A                       | .69  | .61  | .51  | .45  |
| 256014   | BSS138      | ♦    | SOT-23   | N-Ch  | 50               | 0.2A                      | *    | .058 | .042 | .038 |
| 670055   | IRFP150N    | ♦    | TO-247   | N-Ch  | 100              | 42A                       | 1.35 | .95  | .79  | .72  |
| 256031   | BS170       | ♦    | TO-92    | N-Ch  | 60               | —                         | *    | .10  | .07  | .06  |
| 670063   | IRFL210     | ♦    | SOT-223  | N-Ch  | 200              | 0.96A                     | .39  | .37  | .32  | .30  |
| 670071   | IRFR220N    | ♦    | TO-252AA | N-Ch  | 200              | 5A                        | .59  | .52  | .49  | .45  |
| 670080   | IRFP250     | ♦    | TO-247   | N-Ch  | 200              | 30A                       | 1.49 | 1.39 | 1.25 | .99  |
| 670098   | IRFP250N    | ♦    | TO-247   | N-Ch  | 200              | 30A                       | 2.69 | 2.35 | 1.89 | 1.65 |
| 670101   | IRFP260N    | ♦    | TO-247   | N-Ch  | 200              | 50A                       | 2.69 | 2.15 | 1.95 | 1.65 |
| 670119   | IRFR320     | ♦    | TO-252AA | N-Ch  | 400              | 3.1A                      | .55  | .49  | .43  | .41  |
| 670127   | IRFR420     | ♦    | TO-252AA | N-Ch  | 500              | 2.4A                      | .69  | .61  | .43  | .40  |
| 670135   | IRFP450     | ♦    | TO-247   | N-Ch  | 500              | 14A                       | 2.05 | 1.65 | 1.49 | 1.25 |
| 670143   | IRFP460     | ♦    | TO-247   | N-Ch  | 500              | 20A                       | 2.59 | 2.39 | 2.29 | 2.09 |
| 209234   | IRF510      | ♦    | TO-220   | N-Ch  | 100              | 5.6A                      | .69  | .59  | .55  | .49  |
| 209226   | IRF520      | ♦    | TO-220   | N-Ch  | 100              | 10A                       | .56  | .48  | .45  | .40  |
| 209058   | IRL520N     | ♦    | TO-220   | N-Ch  | 100              | 10A                       | .56  | .52  | .46  | .39  |
| 210500   | IRF530      | ♦    | TO-220   | N-Ch  | 100              | 14A                       | .66  | .57  | .52  | .49  |
| 670151   | IRF530N     | ♦    | TO-220AB | N-Ch  | 100              | 17A                       | .59  | .48  | .37  | .31  |
| 670160   | IRL530N     | ♦    | TO-220AB | N-Ch  | 100              | 17A                       | .59  | .457 | .416 | .386 |
| 210518   | IRF540      | ♦    | TO-220   | N-Ch  | 100              | 27A                       | .78  | .63  | .57  | .48  |
| 670178   | IRF540NS    | ♦    | D2-Pack  | N-Ch  | 100              | 33A                       | 1.05 | .90  | .68  | .64  |
| 670186   | IRF540N     | ♦    | TO-220   | N-Ch  | 100              | 20A                       | 1.05 | .80  | .72  | .61  |
| 670194   | IRL540N     | ♦    | TO-220AB | N-Ch  | 100              | 30A                       | .89  | .83  | .78  | .72  |
| 670207   | IRF610      | ♦    | TO-220AB | N-Ch  | 200              | 3.3A                      | .49  | .39  | .35  | .29  |
| 210526   | IRF620      | ♦    | TO-220   | N-Ch  | 200              | 6.0A                      | .45  | .42  | .35  | .32  |
| 670215   | IRF624      | ♦    | TO-220AB | N-Ch  | 250              | 4.4A                      | .65  | .49  | .45  | .37  |
| 210534   | IRF630      | ♦    | TO-220   | N-Ch  | 200              | 9.0A                      | .75  | .65  | .58  | .43  |
| 210542   | IRF640      | ♦    | TO-220   | N-Ch  | 200              | 18A                       | .69  | .65  | .57  | .49  |
| 670223   | IRF640NS    | ♦    | D2-Pack  | N-Ch  | 200              | 18A                       | 1.19 | .99  | .88  | .69  |
| 670231   | IRF644      | ♦    | TO-220AB | N-Ch  | 250              | 14A                       | .82  | .73  | .61  | .54  |
| 670240   | IRF720      | ♦    | TO-220AB | N-Ch  | 400              | 3.3A                      | .56  | .45  | .41  | .34  |
| 210551   | IRF730      | ♦    | TO-220   | N-Ch  | 400              | 5.5A                      | .64  | .62  | .58  | .43  |
| 210569   | IRF740      | ♦    | TO-220   | N-Ch  | 400              | 10A                       | 1.25 | 1.10 | .89  | .80  |
| 210577   | IRF820      | ♦    | TO-220   | N-Ch  | 500              | 4.0A                      | .48  | .46  | .43  | .32  |
| 210585   | IRF830      | ♦    | TO-220   | N-Ch  | 500              | 4.5A                      | .65  | .62  | .59  | .44  |
| 184719   | IRF840      | ♦    | TO-220   | N-Ch  | 500              | 8.0A                      | 1.28 | 1.05 | .88  | .50  |
| 670258   | IRF1010E    | ♦    | TO-220AB | N-Ch  | 60               | 84A                       | 1.55 | 1.40 | 1.26 | 1.15 |
| 670266   | IRF1010N    | ♦    | TO-220AB | N-Ch  | 55               | 85A                       | 1.19 | 1.14 | 1.09 | .99  |
| 693695   | IRF1010NL   | ♦    | TO-262   | N-Ch  | 55               | 85A                       | 3.19 | 2.55 | 1.95 | 1.75 |
| 670274   | IRF1310N    | ♦    | TO-220AB | N-Ch  | 100              | 42A                       | 1.29 | 1.03 | .93  | .78  |
| 670282   | IRF1405     | ♦    | TO-220AB | N-Ch  | 55               | 169A                      | 3.19 | 2.86 | 2.39 | 1.85 |

♦ Jameco Value Offering

♦ Blue Part No. = Limited Quantity Available



## Manufacturer Cross Reference Table

Jameco Value Offering 

| Manufacturer            | Code | Manufacturer      | Code | Manufacturer           | Code | Manufacturer | Code | Manufacturer      | Code |
|-------------------------|------|-------------------|------|------------------------|------|--------------|------|-------------------|------|
| Analog Devices          | ADI  | Linear Technology | LTC  | Microchip              | MCH  | ON Semi      | ON   | Texas Instruments | TI   |
| Fairchild Semiconductor | FSC  | Maxim Corporation | MAX  | National Semiconductor | NSC  | ST Micro     | ST   | Vishay            | VSH  |

## N-Channel & P-Channel MOSFETs (Cont.)

Package (see above)

\* Minimum order 10 pieces

| Part No. | Product No. | Mfr. | Pkg.      | Desc.     | BV <sub>DS</sub> | Min. On-St. DS Current | 1      | 10     | 100    | 1000   |
|----------|-------------|------|-----------|-----------|------------------|------------------------|--------|--------|--------|--------|
| 670291   | IRL2203N    | +    | TO-220AB  | N-Ch      | 30               | 116A ...               | \$1.45 | \$1.39 | \$1.29 | \$1.15 |
| 279460   | VN2222LL    | +    | TO-92     | N-Ch      | 60               | .75A ...               | .23    | .20    | .16    | .14    |
| 670303   | IRLML2402   | +    | SOT-23    | N-Ch      | 20               | 1.2A ...               | .22    | .17    | .15    | .13    |
| 279478   | VN2406L     | +    | TO-92     | N-Ch      | 240              | 1.0A ...               | .55    | .44    | .34    | .21    |
| 670311   | IRLL2705    | +    | SOT-223   | N-Ch      | 55               | 5.2A ...               | 1.09   | 1.03   | .89    | .83    |
| 670320   | IRLML2803   | +    | SOT-23    | N-Ch      | 30               | 1.2A ...               | *      | .15    | .14    | .13    |
| 670338   | IRF2807     | +    | TO-220AB  | N-Ch      | 75               | 82A ...                | 1.95   | 1.75   | 1.55   | 1.43   |
| 670346   | IRL2910     | +    | TO-220AB  | N-Ch      | 100              | 55A ...                | 1.89   | 1.79   | 1.63   | 1.43   |
| 618089   | IRF3205     | +    | TO-220    | N-Ch      | 55               | 110A ...               | 2.39   | 1.75   | 1.45   | 1.26   |
| 670354   | IRF3415     | +    | TO-220AB  | N-Ch      | 150              | 43A ...                | 1.45   | 1.15   | 1.05   | .89    |
| 618071   | IRL3705     | +    | TO-220    | N-Ch      | 55               | 89A ...                | 1.37   | 1.13   | .90    | .84    |
| 670362   | IRF3710     | +    | TO-220AB  | N-Ch      | 100              | 57A ...                | 1.29   | 1.05   | .93    | .85    |
| 670371   | IRFPS37N50A | +    | Super-247 | N-Ch      | 500              | 36A ...                | 6.95   | 6.19   | 5.15   | 4.75   |
| 670389   | IRFL4310    | +    | SOT-223   | N-Ch      | 100              | 2.2A ...               | 1.29   | 1.05   | .77    | .72    |
| 255038   | SI4420DY    | +    | SOIC-8    | N-Ch      | 30               | 30A ...                | 1.99   | 1.88   | 1.62   | 1.21   |
| 670725   | IRF7201     | +    | SOIC-8    | N-Ch      | 30               | 10A ...                | .61    | .58    | .49    | .41    |
| 670397   | IRF7401     | +    | SOIC-8    | N-Ch      | 20               | 10A ...                | .53    | .515   | .487   | .414   |
| 670400   | IRF7413     | +    | SOIC-8    | N-Ch      | 30               | 12A ...                | 1.09   | .79    | .59    | .52    |
| 670418   | IRF7455     | +    | SOIC-8    | N-Ch      | 30               | 15A ...                | .95    | .86    | .72    | .67    |
| 670426   | IRF7811A    | +    | SOIC-8    | N-Ch      | 28               | 11A ...                | .85    | .77    | .64    | .59    |
| 670434   | IRFD9120    | +    | DIP-4     | N-Ch      | 100              | 1.4A ...               | .61    | .58    | .57    | .54    |
| 178669   | 2N7000      | +    | TO-92     | N-Ch      | 60               | 0.2A ...               | .23    | .13    | .10    | .095   |
| 119423   | 2N7000      | +    | TO-92     | N-Ch      | 60               | 0.3A ...               | *      | .11    | .10    | .09    |
| 140169   | 2N7002      | +    | SOT-23    | N-Ch      | 60               | 0.5A ...               | *      | .08    | .06    | .045   |
| 256057   | BS250       | +    | TO-92     | P-Ch      | -45              | —                      | .37    | .34    | .30    | .20    |
| 255046   | SI4435DY    | +    | SOIC-8    | P-Ch      | -30              | -40A ...               | .60    | .496   | .45    | .388   |
| 255054   | SI4463DY    | +    | SOIC-8    | P-Ch      | -20              | -30A ...               | 1.65   | 1.58   | 1.44   | 1.31   |
| 670442   | IRF4905     | +    | TO-220AB  | P-Ch      | -55              | -74A ...               | 1.75   | 1.63   | 1.53   | 1.31   |
| 670451   | IRF4905S    | +    | D2-Pack   | P-Ch      | -55              | -74A ...               | 2.15   | 1.65   | 1.39   | 1.19   |
| 670469   | IRLML5103   | +    | SOT-23    | P-Ch      | -30              | -0.76A ...             | *      | .16    | .15    | .14    |
| 670477   | IRF5210     | +    | TO-220AB  | P-Ch      | -100             | -40A ...               | 1.41   | 1.14   | 1.10   | 1.07   |
| 670485   | IRF5305     | +    | TO-220AB  | P-Ch      | -55              | -31A ...               | 1.15   | 1.01   | .82    | .69    |
| 670493   | IRFR5305    | +    | TO-252AA  | P-Ch      | -55              | -31A ...               | .79    | .74    | .70    | .59    |
| 670506   | IRFR5410    | +    | TO-252AA  | P-Ch      | -100             | -13A ...               | .59    | .50    | .45    | .37    |
| 670514   | IRLML6302   | +    | SOT-23    | P-Ch      | -20              | -0.78A ...             | .22    | .17    | .15    | .13    |
| 670522   | IRLML6401   | +    | SOT-23    | P-Ch      | -12              | -12A ...               | .26    | .21    | .19    | .16    |
| 670531   | IRF7404     | +    | SOIC-8    | P-Ch      | -20              | -7.7A ...              | .55    | .49    | .41    | .38    |
| 670549   | IRF7416     | +    | SOIC-8    | P-Ch      | -30              | -10A ...               | 1.05   | .73    | .60    | .57    |
| 670557   | IRFL9014    | +    | SOT-223   | P-Ch      | -60              | -19A ...               | .79    | .51    | .39    | .33    |
| 670565   | IRFR9024    | +    | TO-252AA  | P-Ch      | -60              | -8.8A ...              | .72    | .63    | .57    | .47    |
| 670573   | IRFR9024N   | +    | TO-252AA  | P-Ch      | -55              | -11A ...               | .63    | .51    | .45    | .38    |
| 670581   | IRF9234N    | +    | TO-220AB  | P-Ch      | -55              | -1.8A ...              | .70    | .66    | .62    | .52    |
| 670590   | IRFR9120    | +    | TO-252AA  | P-Ch      | -100             | -5.6A ...              | .65    | .59    | .52    | .43    |
| 670602   | IRFR9120N   | +    | TO-252AA  | P-Ch      | -100             | -6.6A ...              | .61    | .43    | .36    | .33    |
| 670611   | IRFR9220    | +    | TO-252AA  | P-Ch      | -200             | -3.6A ...              | 1.19   | 1.09   | .90    | .86    |
| 670629   | IRF9520     | +    | TO-220AB  | P-Ch      | -100             | 6A ...                 | .99    | .92    | .86    | .77    |
| 670741   | IRF9530     | +    | TO-220AB  | P-Ch      | -100             | -12A ...               | .68    | .55    | .49    | .41    |
| 670637   | IRF9530N    | +    | TO-220AB  | P-Ch      | -100             | -14A ...               | .79    | .62    | .55    | .46    |
| 670645   | IRF9540N    | +    | TO-220AB  | P-Ch      | -100             | -23A ...               | 1.05   | .85    | .76    | .63    |
| 670653   | IRF9640     | +    | TO-220AB  | P-Ch      | -200             | -11A ...               | 1.09   | .94    | .85    | .70    |
| 670661   | IRF7103     | +    | SOIC-8    | Dual N-Ch | 50               | 3A ...                 | .43    | .39    | .32    | .29    |
| 670670   | IRF7303     | +    | SOIC-8    | Dual N-Ch | 30               | 5.3A ...               | .75    | .66    | .47    | .45    |
| 670696   | IRF7313     | +    | SOIC-8    | Dual N-Ch | 30               | 6.5A ...               | .85    | .77    | .64    | .59    |

† Jameco Value Offering FSC = Fairchild Semiconductor

## N-Channel & P-Channel MOSFETs (Cont.)

| Part No. | Product No. | Mfr. | Pkg.   | Desc.       | BV <sub>DS</sub> | Min. On-St.   |       |       |       |       |
|----------|-------------|------|--------|-------------|------------------|---------------|-------|-------|-------|-------|
|          |             |      |        |             |                  | DS Current    | 1     | 10    | 100   | 1000  |
| 670688   | IRF7306     | ◆    | SOIC-8 | Dual P-Ch   | -30              | -4A ....      | \$.75 | \$.60 | \$.42 | \$.40 |
| 670709   | IRF7314     | ◆    | SOIC-8 | Dual P-Ch   | -20              | -5.3A ....    | .82   | .58   | .48   | .45   |
| 670733   | IRF7105     | ◆    | SOIC-8 | Dual N/P Ch | 25/-25           | 3.5/-2.3A ... | .35   | .32   | .30   | .28   |
| 670717   | IRF7309     | ◆    | SOIC-8 | Dual N/P Ch | 30/-30           | 4.7/-3.5A ... | .73   | .65   | .46   | .43   |

◆ Jameco Value Offering

## N-Channel & P-Channel MOSFETs

| Part No. | Product No.  | Pkg.   | Desc.       | BV <sub>DS</sub> | Min. On-St.  |        |        |        |        |
|----------|--------------|--------|-------------|------------------|--------------|--------|--------|--------|--------|
|          |              |        |             |                  | DS Current   | 1      | 10     | 100    | 1000   |
| 699894   | SI4442DY     | SOIC-8 | N-Ch        | 30               | 30A ....     | \$1.99 | \$1.89 | \$1.77 | \$1.59 |
| 699907   | SI4450DY     | SOIC-8 | N-Ch        | 60               | 20A ....     | 1.85   | 1.74   | 1.65   | 1.49   |
| 699915   | SI4466DY     | SOIC-8 | N-Ch        | 20               | 30A .....    | 1.99   | 1.81   | 1.67   | 1.55   |
| 699940   | SI4850EY     | SOIC-8 | N-Ch        | 60               | 40A ....     | 1.39   | 1.33   | 1.21   | 1.11   |
| 699958   | SI4874DY     | SOIC-8 | N-Ch        | 30               | 40A .....    | .95    | .93    | .90    | .87    |
| 699878   | SI4431ADY    | SOIC-8 | P-Ch        | -30              | -7A .....    | 1.23   | 1.17   | 1.07   | .97    |
| 814400   | SI4431BDY    | SOIC-8 | P-Ch        | -30              | -7A .....    | .67    | .59    | .53    | .51    |
| 699886   | SI4431DY     | SOIC-8 | P-Ch        | -30              | -7A .....    | .67    | .66    | .64    | .62    |
| 699923   | SI4532DY     | SOIC-8 | N & P-Ch    | 30/-30           | 15/-15A .... | .56    | .54    | .52    | .49    |
| 700091   | SUB75P03-07  | TO-263 | P-Ch        | -30              | -120A ....   | 4.89   | 3.97   | 3.74   | 3.59   |
| 700040   | SI9407AEY    | SOIC-8 | P-Ch        | -60              | -20A ....    | 1.29   | 1.23   | 1.13   | 1.05   |
| 700058   | SI9435BDY    | SOIC-8 | P-Ch        | -30              | -20A .....   | .55    | .473   | .457   | .43    |
| 699966   | SI4920DY     | SOIC-8 | Dual N-Ch   | 30               | 20A ....     | 1.59   | 1.48   | 1.39   | 1.35   |
| 699974   | SI4922DY     | SOIC-8 | Dual N-Ch   | 30               | 30A ....     | 1.99   | 1.87   | 1.83   | 1.73   |
| 700015   | SI4946EY     | SOIC-8 | Dual N-Ch   | 60               | 20A .....    | 1.99   | 1.88   | 1.73   | 1.59   |
| 700031   | SI4966DY     | SOIC-8 | Dual N-Ch   | 20               | 20A ....     | 1.89   | 1.78   | 1.68   | 1.53   |
| 699931   | SI4539DY     | SOIC-8 | Dual N/P Ch | 30/-30           | 20/-20 ....  | .79    | .77    | .75    | .72    |
| 700066   | SI9936BDY-E3 | SOIC-8 | Dual N-Ch   | 30               | 40A .....    | .99    | .94    | .86    | .79    |
| 700074   | SI9945AEY    | SOIC-8 | Dual N-Ch   | 60               | 20A .....    | 1.38   | 1.29   | 1.23   | 1.13   |
| 699982   | SI4925DY     | SOIC-8 | Dual P-Ch   | -30              | -20A ....    | 1.85   | 1.77   | 1.59   | 1.49   |
| 700007   | SI4943DY     | SOIC-8 | Dual P-Ch   | -20              | -30A ....    | 1.99   | 1.88   | 1.73   | 1.69   |
| 700023   | SI4948EY     | SOIC-8 | Dual P-Ch   | -60              | -20A ....    | 1.69   | 1.58   | 1.53   | 1.45   |

## Zener Diodes

Package (see above)

\* Minimum order 10 pieces

| Part No. | Product No. | Mfr. | Pkg.  | V <sub>Znom</sub> | Pwr Dissipation | 1      | 10     | 100    | 500    | 1000 |
|----------|-------------|------|-------|-------------------|-----------------|--------|--------|--------|--------|------|
| 36290    | 1N751A      | +    | DO-35 | 5.1V              | 0.5W            | \$.034 | \$.031 | \$.025 | \$.019 |      |
| 178765   | 1N4730A     | +    | DO-41 | 3.9V              | 1W              | .05    | .035   | .025   | .022   |      |
| 178773   | 1N4732A     | +    | VSH   | 4.7V              | 1W              | .088   | .069   | .056   | .044   |      |
| 36097    | 1N4733A     | +    | DO-41 | 5.1V              | 1W              | .08    | .065   | .042   | .026   |      |
| 36118    | 1N4734A     | +    | DO-41 | 5.6V              | 1W              | .073   | .055   | .05    | .045   |      |
| 178802   | 1N4735A     | +    | VSH   | 6.2V              | 1W              | .049   | .044   | .04    | .036   |      |
| 36126    | 1N4735A     | +    | DO-41 | 6.2V              | 1W              | .07    | .045   | .041   | .035   |      |
| 178837   | 1N4739A     | +    | DO-41 | 9.1V              | 1W              | .057   | .038   | .032   | .029   |      |
| 36169    | 1N4742A     | +    | DO-41 | 12V               | 1W              | .06    | .05    | .04    | .03    |      |
| 36185    | 1N4744A     | +    | DO-41 | 15V               | 1W              | .058   | .035   | .026   | .021   |      |
| 179039   | 1N5230B     | +    | DO-35 | 4.7V              | 0.5W            | .03    | .026   | .021   | .016   |      |
| 179047   | 1N5231B     | +    | DO-35 | 5.1V              | 0.5W            | .04    | .035   | .03    | .027   |      |
| 179063   | 1N5234B     | +    | DO-35 | 6.2V              | 0.5W            | .029   | .026   | .025   | .024   |      |



† Jameco Value Offering VSH = Vishay \* 10 pcs. in Diode/Rectifier cabinet kit, pg 36

## NTE Replacement Semiconductors

When you need a replacement semiconductor, look towards the products from NTE.



See Our Complete NTE Series Offering at [www.Jameco.com/Prod/NTE](http://www.Jameco.com/Prod/NTE)

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)



## Small Signal Diodes

Package (see pg 35)

| Part No. | Product No. | Mfr. | Pkg.    | Description         | * Minimum order 10 pieces |        |        |        |
|----------|-------------|------|---------|---------------------|---------------------------|--------|--------|--------|
|          |             |      |         |                     | 10                        | 100    | 500    | 1000   |
| 655728   | BAV20       | ◆    | DO-35   | 200VRRM, 0.2A ..... | \$.029                    | \$.017 | \$.014 | \$.013 |
| 655859   | BAV21       | ◆    | DO-35   | 250VRRM, 0.2A ..... | .029                      | .017   | .014   | .013   |
| 655963   | BAY71       | ◆    | DO-35   | 50VRRM, 0.3A .....  | .033                      | .017   | .014   | .013   |
| 655605   | BAY72       | ◆    | DO-35   | 125VRRM, 0.2A ..... | .033                      | .017   | .014   | .013   |
| 655613   | BAY73       | ◆    | DO-35   | 125VRRM, 0.5A ..... | .033                      | .017   | .014   | .013   |
| 656173   | BAW74       | ◆    | SOT-23  | 50VRRM, 0.2A .....  | .057                      | .025   | .023   | .02    |
| 655939   | 1N456A      | ◆    | DO-35   | 30VRRM, 0.5A .....  | .029                      | .017   | .014   | .011   |
| 655998   | FDLL457A    | ◆    | LL-34   | 70VRRM, 0.2A .....  | .034                      | .023   | .02    | .019   |
| 655971   | 1N457       | ◆    | DO-35   | 70VRRM, 0.2A .....  | .029                      | .017   | .014   | .012   |
| 655980   | 1N457A      | ◆    | DO-35   | 70VRRM, 0.2A .....  | .029                      | .017   | .014   | .012   |
| 655630   | 1N458A      | ◆    | DO-35   | 150VRRM, 0.5A ..... | .029                      | .017   | .014   | .012   |
| 655779   | 1N459       | ◆    | DO-35   | 200VRRM, 0.5A ..... | .029                      | .017   | .014   | .012   |
| 655787   | 1N459A      | ◆    | DO-35   | 200VRRM, 0.5A ..... | .031                      | .017   | .014   | .012   |
| 655841   | 1N486B      | ◆    | DO-35   | 250VRRM, 0.2A ..... | .035                      | .017   | .014   | .013   |
| 655331   | FDLL914     | ◆    | LL-34   | 100VRRM, 0.2A ..... | .033                      | .017   | .014   | .013   |
| 179207   | 1N914 ⊕     | VSH  | DO-35   | 100PRV .....        | .05                       | .025   | .016   | .014   |
| 36311    | 1N914 ⊕**   | ◆    | DO-35   | 75PRV, 0.01A .....  | .022                      | .018   | .014   | .01    |
| 655269   | 1N914A      | ◆    | DO-35   | 100VRRM, 0.2A ..... | .025                      | .015   | .013   | .009   |
| 655277   | 1N914B      | ◆    | DO-35   | 100VRRM, 0.2A ..... | .039                      | .017   | .014   | .012   |
| 655285   | 1N916       | ◆    | DO-35   | 100VRRM, 0.2A ..... | .025                      | .015   | .013   | .009   |
| 655293   | 1N916A      | ◆    | DO-35   | 100VRRM, 0.2A ..... | .03                       | .019   | .017   | .014   |
| 655306   | 1N916B      | ◆    | DO-35   | 100VRRM, 0.2A ..... | .025                      | .015   | .013   | .009   |
| 656106   | MMBD1205    | ◆    | SOT-23  | 100VRRM, 0.2A ..... | .059                      | .025   | .023   | .02    |
| 656270   | MMBD2838    | ◆    | SOT-23  | 75VRRM, 0.2A .....  | .057                      | .025   | .023   | .019   |
| 656018   | 1N3064      | ◆    | DO-35   | 75VRRM, 0.3A .....  | .019                      | .017   | .014   | .013   |
| 655761   | 1N3070      | ◆    | DO-35   | 200VRRM, 0.5A ..... | .033                      | .017   | .014   | .013   |
| 655314   | FDLL4148    | ◆    | LL-34   | 100VRRM, 0.2A ..... | .029                      | .017   | .014   | .011   |
| 656202   | MMBD4148CC  | ◆    | SOT-23  | 100VRRM, 0.2A ..... | .058                      | .025   | .023   | .019   |
| 656296   | MMBD4148SE  | ◆    | SOT-23  | 100VRRM, 0.2A ..... | .058                      | .025   | .023   | .019   |
| 655411   | MMSD4148    | ◆    | SOD-123 | 100VRRM, 0.6A ..... | .059                      | .037   | .03    | .023   |
| 655390   | 1N4149      | ◆    | DO-35   | 100VRRM, 0.3A ..... | .019                      | .013   | .009   | .008   |
| 655955   | 1N4152      | ◆    | DO-35   | 40VRRM, 0.2A .....  | .028                      | .017   | .014   | .011   |
| 656026   | 1N4305      | ◆    | DO-35   | 75VRRM, 0.3A .....  | .019                      | .013   | .008   | .007   |
| 655322   | FDLL4448    | ◆    | LL-34   | 100VRRM, 0.2A ..... | .039                      | .017   | .014   | .013   |
| 655242   | 1N4448      | ◆    | DO-35   | 100VRRM, 0.2A ..... | .019                      | .013   | .008   | .007   |
| 655795   | 1N4938      | ◆    | DO-35   | 200VRRM, 0.5A ..... | .035                      | .017   | .014   | .013   |

♦ Jameco Value Offering \*\*100 pcs. in Diode/Rectifier cabinet kit, right

## Diodes

Package (see pg 35)

| Part No. | Product No. | Mfr. | Pkg.   | Description                     | * Minimum order 10 pieces |        |        |      |
|----------|-------------|------|--------|---------------------------------|---------------------------|--------|--------|------|
|          |             |      |        |                                 | 1                         | 10     | 100    | 1000 |
| 140185   | BAS16       | ⊕    | SOT-23 | 70PRV, 1A (Switching)           | \$.041                    | \$.033 | \$.025 |      |
| 655576   | BAS19       | ♦    | SOT-23 | 120VRM, 0.2A (Switching)        | *.041                     | .025   | .022   |      |
| 655592   | BAV19       | ♦    | DO-35  | 120BV, 0.2A (General purpose)   | *.033                     | .017   | .014   |      |
| 655875   | BAS21       | ♦    | SOT-23 | 250BV, 0.6A (General purpose)   | *.054                     | .025   | .023   |      |
| 656350   | BAV23S      | ♦    | SOT-23 | 250VRRM, 0.2A (General purpose) | *.075                     | .033   | .029   |      |
| 656317   | BAS31       | ♦    | SOT-23 | 120BV, 0.2A (General purpose)   | *.057                     | .025   | .023   |      |
| 656034   | BAW62       | ♦    | DO-35  | 75VRRM, 0.3A (Switching)        | *.033                     | .017   | .014   |      |
| 656253   | BAV74       | ♦    | SOT-23 | 50BV, 0.2A (Ultrafast)          | *.059                     | .025   | .023   |      |
| 655808   | BAV102      | ♦    | LL-34  | 200BV, 0.5A (General purpose)   | *.057                     | .025   | .023   |      |
| 655867   | BAV103      | ♦    | LL-34  | 250BV, 0.5A (General purpose)   | *.057                     | .025   | .023   |      |
| 35941    | 1N270       | ⊕*   | DO-7   | 80PRV (Germanium)               | .99                       | .86    | .74    | .61  |
| 655648   | FDH300      | ♦    | DO-35  | 150BV, 0.5A (Low leakage)       | *.041                     | .025   | .023   |      |
| 655664   | FDH333      | ♦    | DO-35  | 150BV, 0.5A (Low leakage)       | *.041                     | .025   | .023   |      |
| 655816   | FDH400      | ♦    | DO-35  | 200BV, 0.5A (General purpose)   | *.041                     | .025   | .023   |      |
| 656069   | FDH600      | ♦    | DO-35  | 75BV, 0.4A (Ultrafast)          | *.033                     | .017   | .016   |      |
| 655904   | FDH700      | ♦    | DO-35  | 30BV, 0.15A (Ultrafast)         | *.041                     | .025   | .023   |      |
| 312101   | MBR1100     | ⊕    | DO-41  | 100PRV, 1.0A (Schottky)         | .26                       | .234   | .187   | .14  |
| 655365   | MMBD1201    | ♦    | SOT-23 | 100BV, 0.2A (Ultrafast)         | *.049                     | .025   | .022   |      |
| 656288   | MMBD1203    | ♦    | SOT-23 | 100BV, 0.2A (Ultrafast)         | *.039                     | .025   | .023   |      |
| 656190   | MMBD1204    | ♦    | SOT-23 | 100BV, 0.2A (Ultrafast)         | *.039                     | .025   | .023   |      |
| 656325   | MMBD1403    | ♦    | SOT-23 | 200BV, 0.2A (General purpose)   | *.049                     | .025   | .023   |      |
| 656211   | MMBD1404    | ♦    | SOT-23 | 200BV, 0.2A (General purpose)   | *.049                     | .025   | .023   |      |
| 655744   | MMBD1501A   | ♦    | SOT-23 | 200BV, 0.2A (Low leakage)       | *.041                     | .025   | .023   |      |
| 656245   | MMBD1704A   | ♦    | SOT-23 | 30BV, 0.05A (Low leakage)       | *.049                     | .025   | .023   |      |

♦ Jameco Value Offering VSH = Vishay \*10 pcs. in Diode/Rectifier cabinet kit, right

## Diodes (Continued)

Package (see pg 35)

| Part No. | Product No. | Mfr. | Pkg.   | Description               | * Minimum order 10 pieces |        |        |       |
|----------|-------------|------|--------|---------------------------|---------------------------|--------|--------|-------|
|          |             |      |        |                           | 1                         | 10     | 100    | 1000  |
| 656165   | MMBD1705    | ♦    | SOT-23 | 30BV, 0.05A (Low leakage) | *.049                     | \$.025 | \$.023 |       |
| 179215   | 1N4148      | ⊕    | VSH    | DO-35                     | 100PRV (Switching)        | *.04   | .03    | .025  |
| 36038    | 1N4148      | ⊕**  | ♦      | DO-35                     | 75PRV, 0.01A (Switching)  | *.036  | .028   | .021  |
| 151247   | 1N4148T     | ⊕    | ♦      | DO-35                     | 75PRV, 0.01A (Switching)  | #      | #      | #.009 |
| 656077   | FDLL4150    | ♦    | LL-34  | 75BV, 0.4A (Ultrafast)    | *.041                     | .025   | .023   |       |
| 656042   | 1N4150      | ♦    | DO-35  | 75BV, 0.4A (Ultrafast)    | *.033                     | .017   | .014   |       |
| 656000   | 1N4151      | ♦    | DO-35  | 75VRRM, 0.15A (Switching) | *.033                     | .017   | .014   |       |
| 655947   | 1N4154      | ♦    | DO-35  | 35BV, 0.3A (Switching)    | *.019                     | .014   | .008   |       |
| 656051   | 1N4454      | ♦    | DO-35  | 75BV, 0.4A (Ultrafast)    | *.029                     | .017   | .014   |       |
| 656309   | MMBD7000    | ♦    | SOT-23 | 100BV, 0.2A (Ultrafast)   | *.049                     | .025   | .023   |       |

♦ Jameco Value Offering VSH = Vishay

\*\*100 pcs. in Diode/Rectifier cabinet kit, below # Taped-ammo style: order in increments of 1000

## Transient Voltage Suppressors

DO-15/DO-41

| Part No. | Product No. | Watts | Pkg.  | Min. Brkdown Volt. (V <sub>BR</sub> ) | Stand-Off Voltage | * Minimum order 10 pieces |       |       |       |
|----------|-------------|-------|-------|---------------------------------------|-------------------|---------------------------|-------|-------|-------|
|          |             |       |       |                                       |                   | 1                         | 10    | 100   | 1000  |
| 254991   | SA12CA      | 500   | DO-15 | 13.3                                  | 12.0              | \$.22                     | \$.20 | \$.16 | \$.12 |
| 254908   | SA28A       | 500   | DO-15 | 31.1                                  | 28                | \$.21                     | .189  | .151  | .113  |
| 256663   | P6KE6.8A    | 600   | DO-15 | 6.45                                  | 5.8               | *.14                      | .13   | .13   | .096  |
| 255847   | P6KE24CA    | 600   | DO-15 | 22.8                                  | 20.5              | .19                       | .17   | .136  | .104  |
| 255775   | P6KE33CA    | 600   | DO-15 | 31.4                                  | 28.2              | .26                       | .23   | .184  | .138  |
| 255951   | P6KE150CA   | 600   | DO-15 | 143.0                                 | 128               | .21                       | .16   | .14   | .10   |
| 255839   | P6KE250CA   | 600   | DO-15 | 237.0                                 | 214               | .23                       | .20   | .16   | .126  |
| 618118   | 1N5908      | 1500  | DO-41 | 6.0                                   | —                 | .57                       | .51   | .298  | .268  |

## Triacs



TO-220/TO-220AB



TO-225AA



TO-3

| Part No. | Product No. | Mfr. | Pkg.     | Type  | Rating                              | 1      | 10     | 100    |
|----------|-------------|------|----------|-------|-------------------------------------|--------|--------|--------|
| 31819    | SC146B      | ✦    | TO-220   | Triac | 200 V <sub>DRM</sub> , 10A (2N6342) | \$1.29 | \$1.15 | \$ .99 |
| 31827    | SC146M      | ✦    | TO-220   | Triac | 600 V <sub>DRM</sub> , 10A (2N6344) | 1.99   | 1.79   | 1.43   |
| 160207   | Q4008L4Ⓢ    | TEC  | TO-220AB | Triac | 400 V <sub>DRM</sub> , 8A           | 1.07   | .92    | .69    |
| 220492   | Q4008R4Ⓢ    | TEC  | TO-220AB | Triac | 400 V <sub>DRM</sub> , 8A           | .80    | .71    | .68    |
| 139336   | Q4015L5Ⓢ    | ✦    | TO-220AB | Triac | 400 V <sub>DRM</sub> , 15A          | 1.55   | 1.36   | 1.25   |
| 160215   | Q6008L5Ⓢ    | TEC  | TO-220AB | Triac | 600 V <sub>DRM</sub> , 8A           | 1.36   | 1.15   | .87    |
| 160231   | Q6015L5Ⓢ    | TEC  | TO-220AB | Triac | 600 V <sub>DRM</sub> , 15A          | 1.59   | 1.44   | 1.08   |
| 220505   | Q6025R6Ⓢ    | TEC  | TO-220AB | Triac | 600 V <sub>DRM</sub> , 25A          | 1.89   | 1.66   | 1.55   |
| 220521   | Q6035P5Ⓢ    | TEC  | TO-3     | Triac | 600 V <sub>DRM</sub> , 35A          | 6.65   | 5.65   | 4.24   |
| 140425   | 2N6071AⓈ    | ✦    | TO-225AA | Triac | 200 V <sub>DRM</sub> , 4A           | .29    | .27    | .25    |

♦ Jameco Value Offering TEC = Teccor

## Diode/Rectifier Assortment Cabinet Kit

420 pcs. (15 types) Diodes, Zener Diodes, Switching and Silicon Rectifiers

Includes: 20 drawer component cabinet (319600), 20 clear plastic drawers (319601), 20 clear dividers (319611), pg 209 and 30 adhesive labels for drawers to identify parts in kit

SAVE 16%

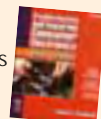


10 each: 1N270, 1N751A, 1N3600, 1N4001, 1N4007, 1N4733A, 1N4735A, 1N4742A, 1N5404, 1N5408, C106B1, KBP04M  
100 each: 1N914, 1N4004, 1N4148

| Part No. | Description                   | Wt. (lbs.) | 1       | 10      |
|----------|-------------------------------|------------|---------|---------|
| 82587    | 420 pcs. (15 types) diode kit | 5.0        | \$39.95 | \$35.95 |
| 130366   | Refill for 82587 (420 pcs.)   | 0.3        | 25.95   | 22.30   |

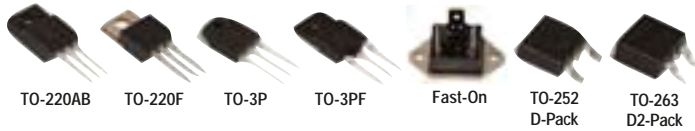
## Troubleshooting & Repairing Consumer Electronics without a Schematic

**TAB Publishing** Learn how to locate, test, and repair defective components in audio amplifiers, car radios, cassette decks, TV chassis, compact disc players, power supplies, AM/FM receivers and VCRs. (475 pages, 1997)
































| Part No. | Description                 | Size        | Wt. (lbs.) | Price   |
|----------|-----------------------------|-------------|------------|---------|
| 136080   | Troubleshooting & Repairing | 7.4" x 9.3" | 1.1        | \$24.95 |


Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.







## SanRex® Through Hole - Standard Triacs

| Part No. | Product No. *   | Pkg.     | Rating (X <sub>DRM</sub> , I <sub>T(RMS)</sub> ) | 1      | 10     | 100   |
|----------|---|----------|--|--------|--------|-------|
| 657037   | TMG5C60    | TO-220AB | Non-isolated 5A, 600V .....                      | \$1.30 | \$1.13 | \$.88 |
| 657045   | TMG5C80    | TO-220AB | Non-isolated 5A, 800V .....                      | 1.39   | 1.27   | 1.13  |
| 657053   | TMG8C60    | TO-220AB | Non-isolated 8A, 600V .....                      | .79    | .74    | .69   |
| 657061   | TMG8C80    | TO-220AB | Non-isolated 8A, 800V .....                      | 1.49   | 1.38   | 1.23  |
| 657070   | TMG10C60   | TO-220AB | Non-isolated 10A, 600V .....                     | 1.44   | 1.29   | 1.17  |
| 657088   | TMG10C80   | TO-220AB | Non-isolated 10A, 800V .....                     | .67    | .63    | .58   |
| 657096   | TMG12C60   | TO-220AB | Non-isolated 12A, 600V .....                     | .90    | .84    | .77   |
| 657109   | TMG12C80   | TO-220AB | Non-isolated 12A, 800V .....                     | 1.00   | .93    | .86   |
| 657117   | TMG16C60   | TO-220AB | Non-isolated 16A, 600V .....                     | 1.02   | .95    | .87   |
| 657125   | TMG16C80   | TO-220AB | Non-isolated 16A, 800V .....                     | 1.02   | .95    | .87   |
| 657133   | TMG20C60   | TO-220AB | Non-isolated 20A, 600V .....                     | 1.29   | 1.19   | 1.09  |
| 657150   | TMG3C60F   | TO-220F  | Isolated 3A, 600V .....                          | .97    | .86    | .78   |
| 657176   | TMG5C60F   | TO-220F  | Isolated 5A, 600V .....                          | .85    | .80    | .74   |
| 657184   | TMG5C80F   | TO-220F  | Isolated 5A, 800V .....                          | 1.49   | 1.37   | 1.23  |
| 657192   | TMG8C60F   | TO-220F  | Isolated 8A, 600V .....                          | .81    | .76    | .71   |
| 657205   | TMG8C80F   | TO-220F  | Isolated 8A, 800V .....                          | 1.65   | 1.49   | 1.34  |
| 657213   | TMG10C60F  | TO-220F  | Isolated 10A, 600V .....                         | 1.55   | 1.40   | 1.27  |
| 657221   | TMG10C80F  | TO-220F  | Isolated 10A, 800V .....                         | .90    | .84    | .78   |
| 657256   | TMG16C60F  | TO-220F  | Isolated 16A, 600V .....                         | 1.43   | 1.25   | .97   |
| 657264   | TMG16C80F  | TO-220F  | Isolated 16A, 800V .....                         | .98    | .92    | .85   |
| 657272   | TMG20C60F  | TO-220F  | Isolated 20A, 600V .....                         | 1.42   | 1.32   | 1.24  |
| 657310   | TMG16C60L  | TO-3P    | Non-isolated 16A, 600V .....                     | 4.05   | 3.58   | 3.31  |
| 657328   | TMG16C80L  | TO-3P    | Non-isolated 16A, 800V .....                     | 3.25   | 2.85   | 2.45  |
| 657336   | TMG25C60L  | TO-3P    | Non-isolated 25A, 600V .....                     | 4.05   | 3.58   | 3.31  |
| 657344   | TMG25C80L  | TO-3P    | Non-isolated 25A, 800V .....                     | 3.25   | 2.85   | 2.45  |
| 657352   | TMG16C60J  | TO-3PF   | Isolated 16A, 600V .....                         | 4.05   | 3.58   | 3.31  |
| 657361   | TMG16C80J  | TO-3PF   | Isolated 16A, 800V .....                         | 3.25   | 2.85   | 2.45  |
| 657379   | TMG25C60J  | TO-3PF   | Isolated 25A, 600V .....                         | 4.05   | 3.58   | 3.31  |
| 657387   | TMG25C80J  | TO-3PF   | Isolated 25A, 800V .....                         | 3.25   | 2.85   | 2.45  |

## SanRex® Through Hole - Sensitive Gate Triacs

| Part No. | Product No. *   | Pkg.      | Rating (X <sub>DRM</sub> , I <sub>T(RMS)</sub> ) | 1      | 10    | 100   |
|----------|---|-----------|--|--------|-------|-------|
| 657395   | TMG5D60    | TO-220AB  | Non-isolated 5A, 600V .....                      | \$ .70 | \$.65 | \$.61 |
| 657424   | TMG8D80    | TO-220AB  | Non-isolated 8A, 800V .....                      | 1.31   | 1.15  | .89   |
| 657432   | TMG10D60   | TO-220AB  | Non-isolated 10A, 600V .....                     | .81    | .74   | .67   |
| 657459   | TMG12D60   | TO-220AB  | Non-isolated 12A, 600V .....                     | 1.59   | 1.40  | 1.09  |
| 657483   | TMG16D80   | TO-220AB  | Non-isolated 16A, 800V .....                     | 1.02   | .95   | .87   |
| 657491   | TMG20D60   | TO-220AB2 | Non-isolated 20A, 600V .....                     | 1.42   | 1.32  | 1.24  |
| 657539   | TMG3D60F   | TO-220F   | Isolated 3A, 600V .....                          | 1.27   | 1.16  | 1.04  |
| 657555   | TMG5D60F   | TO-220F   | Isolated 5A, 600V .....                          | 1.45   | 1.29  | 1.00  |
| 657571   | TMG8D60F   | TO-220F   | Isolated 8A, 600V .....                          | .83    | .76   | .70   |
| 657598   | TMG10D60F  | TO-220F   | Isolated 10A, 600V .....                         | 1.44   | 1.29  | 1.17  |
| 657619   | TMG12D60F  | TO-220F   | Isolated 12A, 600V .....                         | .82    | .75   | .68   |
| 657635   | TMG16D60F  | TO-220F   | Isolated 16A, 600V .....                         | .98    | .90   | .80   |
| 657643   | TMG16D80F  | TO-220F   | Isolated 16A, 800V .....                         | .98    | .92   | .86   |
| 657651   | TMG20D60F  | TO-220F   | Isolated 20A, 600V .....                         | 1.42   | 1.32  | 1.24  |
| 657694   | TMG16D60L  | TO-3P     | Non-isolated 16A, 600V .....                     | 4.05   | 3.58  | 3.31  |
| 657707   | TMG16D80L  | TO-3P     | Non-isolated 16A, 800V .....                     | 3.25   | 2.85  | 2.45  |
| 657715   | TMG25D60L  | TO-3P     | Non-isolated 25A, 600V .....                     | 4.05   | 3.58  | 3.31  |
| 657723   | TMG25D80L  | TO-3P     | Non-isolated 25A, 800V .....                     | 3.25   | 2.85  | 2.45  |
| 657731   | TMG16D60J  | TO-3PF    | Isolated 16A, 600V .....                         | 4.05   | 3.58  | 3.31  |
| 657740   | TMG16D80J  | TO-3PF    | Isolated 16A, 800V .....                         | 3.25   | 2.85  | 2.45  |
| 657758   | TMG25D60J  | TO-3PF    | Isolated 25A, 600V .....                         | 4.05   | 3.58  | 3.31  |
| 657766   | TMG25D80J  | TO-3PF    | Isolated 25A, 800V .....                         | 3.25   | 2.85  | 2.45  |






## SanRex® Surface Mount Device - Sensitive Gate Triacs

| Part No. | Product No. *   | Pkg.           | Rating (X <sub>DRM</sub> , I <sub>T(RMS)</sub> ) | 1      | 10     | 100   |
|----------|---|----------------|--|--------|--------|-------|
| 657918   | TMG2D60D   | TO-252 D-Pack  | Non-isolated 2A, 600V .....                      | \$1.16 | \$1.02 | \$.77 |
| 657926   | TMG2D80D   | TO-252 D-Pack  | Non-isolated 2A, 800V .....                      | .96    | .80    | .64   |
| 657934   | TMG3D60D   | TO-252 D-Pack  | Non-isolated 3A, 600V .....                      | 1.16   | 1.02   | .77   |
| 658056   | TMG16D60H  | TO-263 D2-Pack | Non-isolated 16A, 600V .....                     | 1.42   | 1.32   | 1.24  |






\* For cross references to Littelfuse, ST, and ON-Semi products, refer to datasheets @ Jameco.com.

# Triacs & Rectifiers









## SanRex® Surface Mount Device - Standard Triacs

| Part No. | Product No. *   | Pkg.           | Rating (X <sub>DRM</sub> , I <sub>T(RMS)</sub> ) | 1      | 10    | 100   |
|----------|---|----------------|--|--------|-------|-------|
| 657774   | TMG3C60D   | TO-252 D-Pack  | Non-isolated 3A, 600V .....                      | \$1.13 | \$.99 | \$.76 |
| 657791   | TMG5C60D   | TO-252 D-Pack  | Non-isolated 5A, 600V .....                      | 1.13   | .99   | .76   |
| 657838   | TMG8C60H   | TO-263 D2-Pack | Non-isolated 8A, 600V .....                      | 1.47   | 1.24  | 1.04  |
| 657871   | TMG12C60H  | TO-263 D2-Pack | Non-isolated 12A, 600V .....                     | .71    | .65   | .59   |
| 657897   | TMG16C60H  | TO-263 D2-Pack | Non-isolated 16A, 600V .....                     | 1.42   | 1.32  | 1.24  |

## SanRex® Surface Mount Device - T<sub>J</sub> = 150° Triacs









| Part No. | Product No. *   | Pkg.           | Rating (X <sub>DRM</sub> , I <sub>T(RMS)</sub> ) | 1      | 10     | 100   |
|----------|---|----------------|--|--------|--------|-------|
| 664616   | TMG2CQ60D  | TO-252 D-Pack  | Non-isolated 3A, 600V .....                      | \$1.16 | \$1.02 | \$.77 |
| 658072   | TMG2DQ60D  | TO-252 D-Pack  | Non-isolated 2A, 600V .....                      | 1.16   | 1.02   | .77   |
| 658081   | TMG3CQ60D  | TO-252 D-Pack  | Non-isolated 3A, 600V .....                      | 1.16   | 1.02   | .77   |
| 658099   | TMG3DQ80D  | TO-252 D-Pack  | Non-isolated 3A, 800V .....                      | 1.16   | 1.02   | .77   |
| 658128   | TMG8CQ60H  | TO-263 D2-Pack | Non-isolated 8A, 600V .....                      | 1.47   | 1.24   | 1.04  |

## SanRex® Fast-On Package Triacs

| Part No. | Product No. *   | Pkg.    | Rating (X <sub>DRM</sub> , I <sub>T(RMS)</sub> ) | 1      | 10     | 100    |
|----------|---|---------|--|--------|--------|--------|
| 658187   | TG25E40  | Fast-On | Isolated 25A, 400V .....                         | \$5.99 | \$5.29 | \$4.89 |
| 658195   | TG25E60  | Fast-On | Isolated 25A, 600V .....                         | 5.99   | 5.29   | 4.89   |
| 658208   | TG35E40  | Fast-On | Isolated 35A, 400V .....                         | 7.29   | 6.44   | 5.95   |
| 658216   | TG35E60  | Fast-On | Isolated 35A, 600V .....                         | 7.29   | 6.44   | 5.95   |
| 658241   | TG25F40  | Fast-On | Isolated 25A, 400V .....                         | 5.99   | 5.29   | 4.89   |
| 658259   | TG25F60  | Fast-On | Isolated 25A, 600V .....                         | 5.99   | 5.29   | 4.89   |
| 658267   | TG35F40  | Fast-On | Isolated 35A, 400V .....                         | 7.29   | 6.44   | 5.95   |
| 658275   | TG35F60  | Fast-On | Isolated 35A, 600V .....                         | 7.29   | 6.44   | 5.95   |

\* For cross references to Littelfuse, ST, and ON-Semi products, refer to datasheets.















## Silicon Controlled Rectifiers (SCRs)

| Part No. | Product No.  | Mfr. | Pkg.     | Rating                     | 1      | 10     | 100    | 1000   |
|----------|--|------|----------|----------------------------|--------|--------|--------|--------|
| 14859    | C38M   | +    | TO-65    | 600 PRV, 35A (2N3899)      | \$6.89 | \$6.19 | \$5.59 | \$5.05 |
| 14736    | C106B1 *   | +    | TO-202   | 200 PRV, 4A (2N6239)†      | .67    | .54    | .46    | .40    |
| 14752    | C122B  | +    | TO-220   | 200 PRV, 8A†               | .73    | .66    | .63    | .52    |
| 14761    | C122M  | +    | TO-220   | 600 PRV, 8A†               | 1.35   | 1.25   | 1.05   | .69    |
| 220530   | T106B1  | +    | TO-202AB | 200 V <sub>DRM</sub> , 4A  | .49    | .446   | .416   | .31    |
| 160119   | T106D1  | +    | TO-202AB | 400 V <sub>DRM</sub> , 4A  | .41    | .369   | .295   | .248   |
| 119802   | 2N5060  | +    | TO-92    | 25 PRV, 0.8A               | .21    | .19    | .15    | .12    |
| 211422   | 2N5061  | +    | TO-92    | 60 PRV, 0.8A               | *.141  | .113   | .085   |        |
| 120070   | 2N5062  | +    | TO-92    | 100 PRV, 0.8A              | *.13   | .12    | .11    |        |
| 140417   | 2N6507  | +    | TO-220AB | 400 PRV, 25A               | .83    | .75    | .63    | .56    |
| 220548   | S4025L  | TEC  | TO-220AB | 400 V <sub>DRM</sub> , 25A | 1.49   | 1.42   | 1.34   | 1.30   |
| 160135   | S6025L  | TEC  | TO-220AB | 600 V <sub>DRM</sub> , 25A | 1.45   | 1.31   | 1.18   | 1.04   |

† Isolated + Jameco Value Offering TEC = Teccor \* 10 pcs. in Diode/Rectifier cabinet kit, pg 36


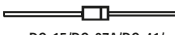
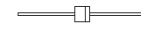
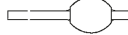








## Rectifiers

Package (see pg 38)

|          |   |      |        |                                  | * Minimum order 10 pieces |        |         |         |
|----------|---|------|--------|----------------------------------|---------------------------|--------|---------|---------|
| Part No. | Product No.   | Mfr. | Pkg.   | Rating                           | 1                         | 10     | 100     | 1000    |
| 177754   | T6A05L   | ◆    | T6L    | 50 PIV, 6A .....                 | \$ .36                    | \$ .32 | \$ .288 | \$ .265 |
| 177762   | T6A10L   | ◆    | T6L    | 100 PIV, 6A .....                | .75                       | .65    | .55     | .45     |
| 177718   | T6A100L  | ◆    | T6L    | 1000 PIV, 6A .....               | .80                       | .72    | .65     | .49     |
| 618100   | MBR745  | ◆    | TO-220 | 35 V <sub>RRM</sub> , 7.5A ..... | .56                       | .49    | .437    | .393    |
| 301444   | MBR1060  | ◆    | TO-220 | 60 V <sub>RRM</sub> , 10A .....  | .63                       | .56    | .48     | .43     |
| 35924    | 1N1188   | ◆    | DO-5   | 400 PRV, 35A .....               | 4.49                      | 4.45   | 4.14    | 3.28    |
| 645706   | MBR1645   | ◆    | TO-220 | 45 V <sub>RRM</sub> , 16A .....  | .85                       | .74    | .63     | .56     |
| 618097   | MBR2535CR   | ◆    | TO-220 | 35 V <sub>RRM</sub> , 30A .....  | .85                       | .78    | .71     | .67     |
| 35975    | 1N4001   | ◆    | DO-41  | 50 PRV, 1A .....                 | *                         | .04    | .028    | .017    |
| 76961    | 1N4002   | ◆    | DO-41  | 100 PRV, 1A .....                | *                         | .04    | .028    | .017    |
| 76970    | 1N4003   | ◆    | DO-41  | 200 PRV, 1A .....                | *                         | .025   | .02     | .015    |
| 35991    | 1N4004   | ◆    | DO-41  | 400 PRV, 1A .....                | *                         | .04    | .028    | .017    |
| 76988    | 1N4005   | ◆    | DO-41  | 600 PRV, 1A .....                | *                         | .04    | .028    | .017    |
| 76996    | 1N4006   | ◆    | DO-41  | 800 PRV, 1A .....                | *                         | .04    | .028    | .017    |
| 36011    | 1N4007   | ◆    | DO-41  | 1000 PRV, 1A .....               | *                         | .04    | .03     | .021    |
| 77075    | 1N5400   | ◆    | DO-27A | 50 PRV, 3A .....                 | *                         | .10    | .098    | .074    |
| 36249    | 1N5401   | ◆    | DO-27A | 100 PIV, 3A .....                | *                         | .09    | .076    | .051    |



## Rectifiers (Continued)






















































|  |  |  |          |  |                           |  |         |      |
|--|--|---|----------|---|---------------------------|---|---------|------|
| DO-5   |  | DO-15/DO-27A/DO-41/<br>DO-201AD/DO-204AL  |          | T6L   |                           | SOD57   |         |      |
| Part No.   | Product No.  | Mfr.  | Pkg.     | Rating  | * Minimum order 10 pieces |   |         |      |
|  |  |   |          |   | 1                         | 10  | 100     | 1000 |
| 77083  | 1N5402      | ♦   | DO-27A   | 200 PRV, 3A .....   | \$ .10                    | \$ .075   | \$ .059 |      |
| 36265  | 1N5404  *   | ♦   | DO-27A   | 400 PRV, 3A .....   | * .10                     | .09   | .057    |      |
| 36273  | 1N5408  *   | ♦   | DO-27A   | 1000 PRV, 3A .....  | * .15                     | .11   | .08     |      |
| 177949   | 1N5817      | ♦   | DO-204AL | 20 PIV, 1A .....  | * .12                     | .09   | .078    |      |
| 177957   | 1N5818      | ♦   | DO-204AL | 30 PIV, 1A .....  | * .07                     | .058  | .052    |      |
| 177965   | 1N5819      | ♦   | DO-204AL | 40 PIV, 1A .....  | * .10                     | .085  | .075    |      |
| 177990   | 1N5822      | ♦   | DO-201AD | 40 PIV, 3A .....  | .21                       | .18   | .168    | .134 |
| 618062   | 40CPQ060  ♦ | ♦   | TO-247AC | 60 V <sub>RRM</sub> , 40A (Schottky)  | 2.25                      | 1.45  | 1.32    | 1.22 |
| ♦ Jameco Value Offering  |  | * 10 pcs. in Diode/Rectifier cabinet kit, pg 36                                   |          |   |                           |   |         |      |

◆ Jameco Value Offering \*10 pcs. in Diode/Rectifier cabinet kit, pg 36

## ON Semiconductor®

## Rectifiers

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|  |                |  |  |  |  |  |
|--|---|---|---|---|---|---|
| TO-247   | TO-220  | D2PAK   | DPAK  | SMA   | SMB   | SMC   |
|  |                |  |  |  |   |   |
| Powermite  | TO-218  | Micro Button  | <div>194</div> <div>NEW</div>   | * Minimum order 5 pieces  |   |   |
| Part No.   | Product No.   | Pkg.  | Rating  | 1   | 5   | 50  |
| 743664   | 1N5817G        | DO-41   | 20 @ 1A .....   | * \$ .123   | \$ .094   |   |
| 743672   | 1N5818G        | DO-41   | 30 @ 1A .....   | * .087  | .078  |   |
| 743681   | 1N5819G        | DO-41   | 40 @ 1A .....   | * .164  | .138  |   |
| 743699   | 1N5820G        | DO-201AD  | 20 @ 3A .....   | * .16   | .148  |   |
| 805167   | 1N5821G        | DO-201AD  | 30 @ 3A .....   | * .178  | .149  |   |
| 805183   | 1N5822G        | DO-201AD  | 40 @ 3A .....   | * .218  | .20   |   |
| 743701   | 1N5822RLG     | DO-201AD  | 40 @ 3A .....   | * .178  | .146  |   |
| 802020   | MUR105G      | DO-41   | 50 @ 1A .....   | * .247  | .223  |   |
| 879262   | MUR110G      | DO-41   | 100 @ 1A .....  | * .127  | .096  |   |
| 879932   | MURS110T3    | SMB   | 100 @ 1A .....  | * .28   | .265  |   |
| 802062   | MUR115G      | DO-41   | 150 @ 1A .....  | * .247  | .223  |   |
| 879959   | MURS120T3    | SMB   | 200 @ 1A .....  | * .224  | .199  |   |
| 879975   | MURS120T3G   | SMB   | 200 @ 1A .....  | * .224  | .199  |   |
| 879289   | MUR120G      | DO-41   | 200 @ 1A .....  | * .206  | .177  |   |
| 865830   | MBRS120T3    | SMB   | 20 @ 1A .....   | * .111  | .096  |   |
| 865725   | MBRM120LT1   | POWERMITE   | 20 @ 1A .....   | * .38   | .34   |   |
| 865864   | MBRS130LT3   | SMB   | 30 @ 1A .....   | * .291  | .255  |   |
| 865899   | MBRS130LT3G  | SMB   | 30 @ 1A .....   | * .116  | .097  |   |
| 865910   | MBRS130T3    | SMB   | 30 @ 1A .....   | * .124  | .114  |   |
| 865944   | MBRS130T3G   | SMB   | 30 @ 1A .....   | * .123  | .105  |   |
| 886737   | MBRA130LT3   | SMA   | 30 @ 1A .....   | * .127  | .098  |   |
| 886745   | MBRA130LT3G  | SMA   | 30 @ 1A .....   | * .127  | .098  |   |
| 879991   | MURS140T3    | SMB   | 400 @ 1A .....  | .59   | .537  | .488  |
| 802089   | MUR140G      | DO-41   | 400 @ 1A .....  | * .128  | .118  |   |
| 865995   | MBRS140LT3   | SMB   | 40 @ 1A .....   | * .308  | .279  |   |
| 866023   | MBRS140T3    | SMB   | 40 @ 1A .....   | * .144  | .116  |   |
| 866058   | MBRS140T3G   | SMB   | 40 @ 1A .....   | * .137  | .119  |   |
| 865750   | MBRM140T1    | POWERMITE   | 40 @ 1A .....   | 2.05  | 1.83  | .419  |
| 886753   | MBRA140T3    | SMA   | 40 @ 1A .....   | * .31   | .292  |   |
| 790567   | MBR150G      | DO-41   | 50 @ 1A .....   | * .183  | .166  |   |
| 880010   | MURS160T3    | SMB   | 600 @ 1A .....  | .58   | .514  | .372  |
| 880028   | MURS160T3G   | SMB   | 600 @ 1A .....  | .58   | .514  | .372  |
| 879414   | MUR160G      | DO-41   | 600 @ 1A .....  | * .125  | .096  |   |
| 879431   | MUR160RLG    | DO-41   | 600 @ 1A .....  | * .106  | .103  |   |
| 886622   | MBR160G      | DO-41   | 60 @ 1A .....   | * .11   | .094  |   |
| 802214   | MUR180EG     | DO-41   | 800 @ 1A .....  | * .404  | .293  |   |
| 880044   | MURS220T3    | SMB   | 200 @ 2A .....  | .50   | .392  | .285  |
| 866103   | MBRS240LT3   | SMB   | 40 @ 2A .....   | * .349  | .323  |   |
| 866138   | MBRS240LT3G  | SMB   | 40 @ 2A .....   | * .14   | .123  |   |
| 791084   | MBRD320      | DPAK  | 20 @ 3A .....   | .89   | .72   | .66   |
| 791105   | MBRD320G     | DPAK  | 20 @ 3A .....   | .91   | .85   | .78   |
| 866162   | MBRS320T3    | SMC   | 20 @ 3A .....   | * .181  | .172  |   |

◆ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

## ON Semiconductor®

## Rectifiers (Cont.)

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| Part No. |             | Product No. |            | Pkg.      | Rating | * Minimum order 5 pieces |      |      |  |
|----------|-------------|-------------|------------|-----------|--------|--------------------------|------|------|--|
|          |             |             |            |           |        | 1                        | 5    | 50   |  |
| 880061   | MURS320T3   | +           | SMC        | 200 @ 3A  |        | .338                     | .311 |      |  |
| 880087   | MURS320T3G  | +           | SMC        | 200 @ 3A  |        | .338                     | .311 |      |  |
| 866197   | MBRS330T3   | +           | SMC        | 30 @ 3A   |        | .181                     | .169 |      |  |
| 866226   | MBRS340T3   | +           | SMC        | 40 @ 3A   |        | .53                      | .49  | .43  |  |
| 866251   | MBRS340T3G  | +           | SMC        | 40 @ 3A   |        | .195                     | .187 |      |  |
| 865565   | MBRD340     | +           | DPAK       | 40 @ 3A   |        | .455                     | .411 |      |  |
| 791121   | MBRD340G    | +           | DPAK       | 40 @ 3A   |        | .294                     | .267 |      |  |
| 790831   | MBR340G     | +           | DO-201AD   | 40 @ 3A   |        | .146                     | .135 |      |  |
| 880108   | MURS360T3   | +           | SMC        | 600 @ 3A  |        | .356                     | .333 |      |  |
| 880124   | MURS360T3G  | +           | SMC        | 600 @ 3A  |        | .24                      | .216 |      |  |
| 866285   | MBRS360T3   | +           | SMC        | 60 @ 3A   |        | .53                      | .49  | .43  |  |
| 866314   | MBRS360T3G  | +           | SMC        | 60 @ 3A   |        | .182                     | .159 |      |  |
| 865590   | MBRD360     | +           | DPAK       | 60 @ 3A   |        | .54                      | .444 | .411 |  |
| 791148   | MBRD360G    | +           | DPAK       | 60 @ 3A   |        | 1.05                     | .98  | .86  |  |
| 886711   | MBR360G     | +           | DO-201AD   | 60 @ 6A   |        | .134                     | .121 |      |  |
| 886729   | MBR360RLG   | +           | DO-201AD   | 60 @ 6A   |        | .134                     | .121 |      |  |
| 802311   | MUR405G     | +           | DO-201AD   | 50 @ 4A   |        | .414                     | .314 |      |  |
| 879641   | MUR410G     | +           | DO-201AD   | 100 @ 4A  |        | .229                     | .221 |      |  |
| 802337   | MUR415G     | +           | DO-201AD   | 150 @ 4A  |        | .41                      | .314 |      |  |
| 879668   | MUR420G     | +           | DO-201AD   | 200 @ 4A  |        | .175                     | .157 |      |  |
| 802353   | MUR460G     | +           | DO-201AD   | 600 @ 4A  |        | .289                     | .253 |      |  |
| 879684   | MUR460RLG   | +           | DO-201AD   | 600 @ 4A  |        | .386                     | .347 |      |  |
| 879852   | MURD620CT   | +           | DPAK       | 200 @ 6A  |        | .391                     | .297 |      |  |
| 802433   | MURD620CTG  | +           | DPAK       | 200 @ 6A  |        | .279                     | .263 |      |  |
| 879879   | MURD620CTT4 | +           | DPAK       | 200 @ 6A  |        | .279                     | .251 |      |  |
| 879705   | MUR620CT    | +           | TO-220AB/3 | 200 @ 6A  |        | .322                     | .29  |      |  |
| 801641   | MSRD620CT   | +           | DPAK       | 200 @ 6A  |        | .347                     | .337 |      |  |
| 865645   | MBRD640CT   | +           | DPAK       | 40 @ 6A   |        | .65                      | .60  | .53  |  |
| 865661   | MBRD660CT   | +           | DPAK       | 50 @ 6A   |        | .62                      | .50  | .46  |  |
| 790938   | MBR735      | +           | TO-220AC/2 | 35 @ 7.5A |        | .76                      | .74  | .56  |  |
| 790954   | MBR745G     | +           | TO-220AC/2 | 45 @ 7.5A |        | .71                      | .62  | .56  |  |
| 801490   | MR750G      | +           | 194        | 50 @ 6A   |        | .63                      | .521 | .482 |  |
| 887876   | MR751       | +           | 194        | 100 @ 6A  |        | .83                      | .79  | .75  |  |
| 878892   | MR751RL     | +           | 194        | 100 @ 6A  |        | .482                     | .468 |      |  |
| 878913   | MR752       | +           | 194        | 200 @ 6A  |        | 1.07                     | .82  | .468 |  |
| 801511   | MR752G      | +           | 194        | 200 @ 6A  |        | .62                      | .51  | .471 |  |
| 878930   | MR754       | +           | 194        | 400 @ 6A  |        | 1.17                     | .90  | .65  |  |
| 878956   | MR754RL     | +           | 194        | 400 @ 6A  |        | .482                     | .468 |      |  |
| 878972   | MR756       | +           | 194        | 600 @ 6A  |        | .80                      | .77  | .69  |  |
| 801537   | MR756G      | +           | 194        | 600 @ 6A  |        | .63                      | .521 | .482 |  |
| 879721   | MUR810      | +           | TO-220AC/2 | 100 @ 8A  |        | .54                      | .445 | .412 |  |
| 879764   | MUR810G     | +           | TO-220AC/2 | 100 @ 8A  |        | .54                      | .445 | .412 |  |
| 802370   | MUR815      | +           | TO-220AC/2 | 150 @ 8A  |        | 1.59                     | 1.41 | 1.01 |  |
| 879781   | MUR820      | +           | TO-220AC/2 | 200 @ 8A  |        | .92                      | .80  | .63  |  |
| 802396   | MUR820G     | +           | TO-220AC/2 | 200 @ 8A  |        | .65                      | .54  | .52  |  |
| 865696   | MBRD835L    | +           | DPAK       | 35 @ 8A   |        | .65                      | .60  | .53  |  |
| 791164   | MBRD835LG   | +           | DPAK       | 35 @ 8A   |        | .56                      | .429 | .383 |  |
| 879799   | MUR840      | +           | TO-220AC/2 | 400 @ 8A  |        | .66                      | .55  | .51  |  |
| 879895   | MURH840CT   | +           | TO-220AB/3 | 400 @ 8A  |        | .92                      | .81  | .71  |  |
| 878999   | MR850       | +           | DO-201AD   | 50 @ 3A   |        | .124                     | .11  |      |  |
| 879019   | MR851       | +           | DO-201AD   | 100 @ 3A  |        | .126                     | .108 |      |  |
| 801553   | MR851RLG    | +           | DO-201AD   | 100 @ 3A  |        | .077                     | .075 |      |  |
| 879035   | MR852G      | +           | DO-201AD   | 200 @ 3A  |        | .088                     | .074 |      |  |
| 801570   | MR852RLG    | +           | DO-201AD   | 200 @ 3A  |        | .287                     | .166 |      |  |
| 879051   | MR854G      | +           | DO-201AD   | 400 @ 3A  |        | .091                     | .076 |      |  |
| 801596   | MR854RLG    | +           | DO-201AD   | 400 @ 3A  |        | .124                     | .112 |      |  |
| 801617   | MR856G      | +           | DO-201AD   | 600 @ 3A  |        | .077                     | .075 |      |  |
| 801625   | MR856RLG    | +           | DO-201AD   | 600 @ 3A  |        | .077                     | .075 |      |  |
| 879916   | MURH860CT   | +           | TO-220AB/3 | 600 @ 8A  |        | 1.16                     | .95  | .86  |  |
| 802450   | MURH860CTG  | +           | TO-220AB/3 | 600 @ 8A  |        | 1.12                     | .93  | .83  |  |
| 879810   | MUR860      | +           | TO-220AC/2 | 600 @ 8A  |        | 1.13                     | .98  | .76  |  |
| 802417   | MUR880E     | +           | TO-220AC/2 | 800 @ 8A  |        | .66                      | .64  | .62  |  |
| 791068   | MBRD1035CTL | +           | DPAK       | 35 @ 10A  |        | 1.05                     | 1.03 | .94  |  |
| 790971   | MBRB1045    | +           | D2PACK     | 45 @ 10A  |        | .99                      | .77  | .56  |  |
| 886761   | MBRB1045T4  | +           | D2PACK     | 45 @ 10A  |        | 1.55                     | 1.32 | .88  |  |
| 886593   | MBR1045     | +           | TO-220AC/2 | 45 @ 10A  |        | .60                      | .483 | .439 |  |
| 808341   | MBR1045G    | +           | TO-220AC/2 | 45 @ 10A  |        | .458                     | .385 |      |  |



## ON Semiconductor® Rectifiers (Cont.)

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| Part No. | Product No. | Pkg.         | Rating     | * Minimum order 5 pieces |     |     |
|----------|-------------|--------------|------------|--------------------------|-----|-----|
|          |             |              |            | 1                        | 5   | 50  |
| 808376   | MBR1060G    | TO-220AC/2   | 60 @ 10A   | ...                      | ... | ... |
| 790479   | MBR1080     | TO-220AC/2   | 80 @ 10A   | ...                      | ... | ... |
| 790508   | MBR1090     | TO-220AC/2   | 90 @ 10A   | ...                      | ... | ... |
| 802046   | MUR1100EG   | DO-41        | 1000 @ 1A  | ...                      | ... | ... |
| 865784   | MBRS1100T3  | SMB          | 100 @ 1A   | ...                      | ... | ... |
| 865813   | MBRS1100T3G | SMB          | 100 @ 1A   | ...                      | ... | ... |
| 790541   | MBR1100G    | DO-41        | 100 @ 1A   | ...                      | ... | ... |
| 802100   | MUR1515     | TO-220AC/2   | 150 @ 15A  | ...                      | ... | ... |
| 879297   | MUR1520     | TO-220AC/2   | 200 @ 15A  | ...                      | ... | ... |
| 879318   | MUR1520G    | TO-220AC/2   | 200 @ 15A  | ...                      | ... | ... |
| 886606   | MBR1535CT   | TO-220AB/3   | 35 @ 15A   | ...                      | ... | ... |
| 790583   | MBR1535CTG  | TO-220AB/3   | 35 @ 15A   | ...                      | ... | ... |
| 879334   | MUR1540     | TO-220AC/2   | 400 @ 15A  | ...                      | ... | ... |
| 886770   | MBRB1545CT  | D2PACK       | 45 @ 15A   | ...                      | ... | ... |
| 886614   | MBR1545CT   | TO-220AB/3   | 45 @ 15A   | ...                      | ... | ... |
| 790604   | MBR1545CTG  | TO-220AB/3   | 45 @ 15A   | ...                      | ... | ... |
| 879351   | MUR1560     | TO-220AC/2   | 600 @ 15A  | ...                      | ... | ... |
| 879377   | MUR1560G    | TO-220AC/2   | 600 @ 15A  | ...                      | ... | ... |
| 802126   | MUR1610CT   | TO-220AB/3   | 100 @ 16A  | ...                      | ... | ... |
| 879457   | MUR1615CT   | TO-220AB/3   | 150 @ 16A  | ...                      | ... | ... |
| 802134   | MUR1615CTG  | TO-220AB/3   | 150 @ 16A  | ...                      | ... | ... |
| 879473   | MUR1620CT   | TO-220AB/3   | 200 @ 16A  | ...                      | ... | ... |
| 879490   | MUR1620CTG  | TO-220AB/3   | 200 @ 16A  | ...                      | ... | ... |
| 879511   | MUR1620CTR  | TO-220AB/3   | 200 @ 16A  | ...                      | ... | ... |
| 802151   | MUR1620CTRG | TO-220AB/3   | 200 @ 16A  | ...                      | ... | ... |
| 879836   | MURB1620CT  | D2PACK       | 300 @ 16A  | ...                      | ... | ... |
| 886631   | MBR1635     | TO-220AC/2   | 35 @ 16A   | ...                      | ... | ... |
| 790621   | MBR1635G    | TO-220AC/2   | 35 @ 16A   | ...                      | ... | ... |
| 802177   | MUR1640CT   | TO-220AB/3   | 400 @ 16A  | ...                      | ... | ... |
| 802193   | MUR1640CTG  | TO-220AB/3   | 400 @ 16A  | ...                      | ... | ... |
| 790647   | MBR1645G    | TO-220AC/2   | 45 @ 16A   | ...                      | ... | ... |
| 802425   | MURB1660CT  | D2PACK       | 600 @ 16A  | ...                      | ... | ... |
| 879537   | MUR1660CT   | TO-220AB/3   | 600 @ 16A  | ...                      | ... | ... |
| 802231   | MUR2020R    | TO-220AC/2   | 200 @ 20A  | ...                      | ... | ... |
| 802257   | MUR2020RG   | TO-220AC/2   | 200 @ 20A  | ...                      | ... | ... |
| 790680   | MBR2030CTL  | TO-220AB/3   | 30 @ 20A   | ...                      | ... | ... |
| 866082   | MBRS2040LT3 | SMB          | 40 @ 20A   | ...                      | ... | ... |
| 886673   | MBR2045CT   | TO-220AB/3   | 45 @ 20A   | ...                      | ... | ... |
| 790701   | MBR2045CTG  | TO-220AB/3   | 45 @ 20A   | ...                      | ... | ... |
| 791017   | MBRB2060CT  | D2PACK       | 60 @ 20A   | ...                      | ... | ... |
| 790727   | MBR2060CT   | TO-220AB/3   | 60 @ 10A   | ...                      | ... | ... |
| 886681   | MBR2080CT   | TO-220AB/3   | 80 @ 20A   | ...                      | ... | ... |
| 790743   | MBR2080CTG  | TO-220AB/3   | 80 @ 10A   | ...                      | ... | ... |
| 801473   | MR2504      | MICRO BUTTON | 400 @ 25A  | ...                      | ... | ... |
| 791033   | MBRB2515L   | D2PACK       | 15 @ 25A   | ...                      | ... | ... |
| 790760   | MBR2515L    | TO-220AC/2   | 15 @ 25A   | ...                      | ... | ... |
| 878841   | MR2535L     | 194          | 20 @ 6A    | ...                      | ... | ... |
| 878850   | MR2535LRL   | 194          | 20 @ 6A    | ...                      | ... | ... |
| 865506   | MBRB2535CTL | D2PACK       | 35 @ 12.5A | ...                      | ... | ... |
| 790786   | MBR2535CTL  | TO-220AB/3   | 35 @ 25A   | ...                      | ... | ... |
| 791236   | MBRB2545CT* | TO-220/3     | 45 @ 25A   | ...                      | ... | ... |
| 865531   | MBRB2545CT  | D2PACK       | 45 @ 30A   | ...                      | ... | ... |
| 886690   | MBR2545CT   | TO-220AB/3   | 45 @ 30A   | ...                      | ... | ... |
| 879553   | MUR3020PT   | TO-218/3     | 200 @ 30A  | ...                      | ... | ... |
| 802273   | MUR3020PTG  | TO-218/3     | 200 @ 30A  | ...                      | ... | ... |
| 802290   | MUR3020WT   | TO-247/3     | 200 @ 30A  | ...                      | ... | ... |
| 791050   | MBRB3030CTL | D2PACK       | 30 @ 30A   | ...                      | ... | ... |
| 879570   | MUR3040PT   | TO-218/3     | 400 @ 30A  | ...                      | ... | ... |
| 886702   | MBR3045PT   | TO-218/3     | 45 @ 30A   | ...                      | ... | ... |
| 790807   | MBR3045WT   | TO-247/3     | 45 @ 30A   | ...                      | ... | ... |
| 879596   | MUR3060PT   | TO-218/3     | 600 @ 30A  | ...                      | ... | ... |
| 879609   | MUR3060WT   | TO-247/3     | 600 @ 30A  | ...                      | ... | ... |
| 790815   | MBR3100G    | DO-201AD     | 100 @ 3A   | ...                      | ... | ... |
| 879078   | MRA4003T3   | SMA          | 300 @ 1A   | ...                      | ... | ... |
| 879094   | MRA4004T3   | SMA          | 400 @ 1A   | ...                      | ... | ... |
| 879115   | MRA4005T3   | SMA          | 600 @ 1A   | ...                      | ... | ... |

\* Isolated

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)










## ON Semiconductor® Rectifiers (Cont.)

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| Part No. | Product No.   | Pkg.       | Rating    | * Minimum order 5 pieces |     |     |
|----------|---------------|------------|-----------|--------------------------|-----|-----|
|          |               |            |           | 1                        | 5   | 50  |
| 879131   | MRA4007T3     | SMA        | 1000 @ 1A | ...                      | ... | ... |
| 790858   | MBR4015CTLG   | TO-220AB/3 | 15 @ 40A  | ...                      | ... | ... |
| 790874   | MBR4015LWT    | TO-247/3   | 15 @ 40A  | ...                      | ... | ... |
| 790891   | MBR4045PT     | TO-218/3   | 45 @ 40A  | ...                      | ... | ... |
| 879625   | MUR4100EG     | DO-201AD   | 1000 @ 8A | ...                      | ... | ... |
| 790911   | MBR6045WT     | TO-247AC/3 | 45 @ 60A  | ...                      | ... | ... |
| 879748   | MUR8100E      | TO-220AC/2 | 1000 @ 8A | ...                      | ... | ... |
| 886577   | MBR10100      | TO-220AC/2 | 100 @ 10A | ...                      | ... | ... |
| 886585   | MBR10100G     | TO-220AC/2 | 100 @ 10A | ...                      | ... | ... |
| 886788   | MBRB20100CT   | D2PACK     | 100 @ 20  | ...                      | ... | ... |
| 790997   | MBRB20100CTG  | D2PACK     | 100 @ 20A | ...                      | ... | ... |
| 886649   | MBR20100CT    | TO-220AB/3 | 100 @ 20A | ...                      | ... | ... |
| 886657   | MBR20100CTG   | TO-220AB/3 | 100 @ 20A | ...                      | ... | ... |
| 791181   | MBRF20100CT*  | TO-220/3   | 100 @ 20A | ...                      | ... | ... |
| 886665   | MBR20200CT    | TO-220AB/3 | 200 @ 20A | ...                      | ... | ... |
| 790663   | MBR20200CTG   | TO-220AB/3 | 200 @ 20A | ...                      | ... | ... |
| 865477   | MBRB20200CT   | D2PACK     | 200 @ 20A | ...                      | ... | ... |
| 791199   | MBRF20200CT*  | TO-220/3   | 200 @ 20A | ...                      | ... | ... |
| 791210   | MBRF20200CTG* | TO-220/3   | 200 @ 20A | ...                      | ... | ... |

\* Isolated

## Bridge Rectifiers

|  |             |      |                   |  |            |  |        |  |  |   |  |
|---|-------------|------|-------------------|--|------------|---|--------|---|--|---|--|
|  |             |      |                   |  |            |  |        |  |  |  |  |
| Part No.  | Product No. | Mfr. | Pkg. <sup>†</sup> | Rating   | 1          | 10  | 100    | 1000  |  |   |  |
| 178001  | DF005M      | ✦    | DF                | 50 PIV, 1A   | \$.35      | \$.30   | \$.22  | \$.13   |  |   |  |
| 103000  | DF01M       | ✦    | DF                | 100 PIV, 1A  | .30        | .27   | .216   | .162  |  |   |  |
| 103042  | DF02M       | ✦    | DF                | 200 PIV, 1A  | .35        | .30   | .22    | .132  |  |   |  |
| 102971  | DF04M       | ✦    | DF                | 400 PIV, 1A  | .37        | .32   | .23    | .17   |  |   |  |
| 103034  | DF06M       | ✦    | DF                | 600 PIV, 1A  | .24        | .219  | .175   | .131  |  |   |  |
| 103026  | DF10M       | ✦    | DF                | 1000 PIV, 1A   | .26        | .236  | .189   | .142  |  |   |  |
| 256575  | DF08M       | ✦    | DIP-4             | 800 PIV, 1.5A  | \$.34      | \$.306  | \$.245 | \$.184  |  |   |  |
| 145429  | KBP02M      | ✦    | KBP               | 200 PIV, 1.5A  | .40        | .35   | .29    | .19   |  |   |  |
| 119562  | KBP04M      | ✦    | KBP               | 400 PIV, 1.5A  | .48        | .46   | .286   | .247  |  |   |  |
| 279494  | W005G       | ✦    | WOG               | 50 PIV, 1.5A   | .38        | .339  | .271   | .203  |  |   |  |
| 103018  | W02G        | ✦    | WOG               | 200 PIV, 1.5A  | .47        | .39   | .34    | .21   |  |   |  |
| 102980  | W04G        | ✦    | WOG               | 400 PIV, 1.5A  | .37        | .39   | .35    | .30   |  |   |  |
| 179469  | W08G        | ✦    | WOG               | 800 PIV, 1.5A  | .29        | .258  | .206   | .155  |  |   |  |
| 279515  | W10G        | ✦    | WOG               | 1000 PIV, 1.5A   | .42        | .36   | .288   | .216  |  |   |  |
| 178124  | W005M       | ✦    | WOM               | 50 PIV, 1.5A   | .29        | .24   | .19    | .13   |  |   |  |
| 178132  | W01M        | ✦    | WOM               | 100 PIV, 1.5A  | .36        | .27   | .20    | .17   |  |   |  |
| 178141  | W02M        | ✦    | WOM               | 200 PIV, 1.5A  | .43        | .38   | .31    | .23   |  |   |  |
| 178183  | BR805D      | ✦    | BR8D              | 50 PIV, 2A   | .55        | .49   | .39    | .35   |  |   |  |
| 178204  | BR82D       | ✦    | BR8D              | 200 PIV, 2A  | .85        | .77   | .69    | .62   |  |   |  |
| 178247  | BR810D      | ✦    | BR8D              | 1000 PIV, 2A   | .59        | .49   | .39    | .35   |  |   |  |
| 253260  | 2KBP06M     | ✦    | KBP               | 600 PIV, 2A  | .54        | .467  | .286   | .264  |  |   |  |
| 253286  | 2KBP10M     | ✦    | KBP               | 1000 PIV, 2A   | .40        | .35   | .29    | .24   |  |   |  |
| 179477  | GBPC25-01   | ✦    | GBPC              | 100 PIV, 25A   | 2.29       | 1.86  | 1.53   | 1.22  |  |   |  |
| 179485  | GBPC25-02   | ✦    | GBPC              | 200 PIV, 25A   | \$.25 1.95 | 1.76  | 1.40   | 1.05  |  |   |  |
| 178280  | MB254       | ✦    | MB35              | 400 PIV, 25A   | 2.35       | 2.10  | 1.90   | 1.70  |  |   |  |
| 178335  | TB252       | ✦    | TB35              | 200 PIV, 25A   | 2.09       | 1.85  | 1.69   | 1.50  |  |   |  |
| 25574   | MDA990-3    | ✦    | 179-01            | 200 PIV, 30A   | 3.99       | 3.45  | 2.99   | 1.85  |  |   |  |
| 25591   | MDA990-6    | ✦    | 179-01            | 600 PIV, 30A   | 4.59       | 4.29  | 3.99   | 3.59  |  |   |  |
| 299882  | GBPC1204    | ✦    | GBPC              | 400 V <sub>RRM</sub> , 12A   | 2.99       | 2.67  | 1.89   | 1.15  |  |   |  |
| 299874  | GBPC1206    | ✦    | GBPC              | 600 V <sub>RRM</sub> , 12A   | 3.15       | 2.67  | 1.95   | 1.46  |  |   |  |
| 299866  | GBPC1206W   | ✦    | GBPC-W            | 600 V <sub>RRM</sub> , 12A   | 1.89       | 1.70  | 1.36   | 1.04  |  |   |  |
| 178431  | MB358       | ✦    | MB35              | 800 PIV, 35A   | 3.59       | 3.29  | 2.75   | 1.85  |  |   |  |
| 178503  | TB3510      | ✦    | TB35              | 1000 PIV, 35A  | 3.25       | 2.65  | 2.40   | 2.15  |  |   |  |

♣ Jameco Value Offering \*10 pcs. in Diode/Rectifier cabinet kit, pg 36

† DF/KBP/WOG/WOM/179-01 – plastic case; GBPC/TB35 – plastic case, metal base; MB35 – metal case



## Optoisolators

| Part No. | Cross Ref. | Package | Description                               | 1      | 10   | 100       |
|----------|------------|---------|---|--------|------|-----------|
| 40985    | 4N25       | DIP-6   | Diode, NPN phototransistor                | .22    | .18  | .16       |
| 671808   | 4N25S      | SOIC-6  | General purpose phototransistor           | .28    | .212 | .118      |
| 41005    | 4N26       | DIP-6   | Diode, NPN phototransistor                | .20    | .18  | .135      |
| 671816   | 4N26S      | SOIC-6  | General purpose phototransistor           | .26    | .212 | .119      |
| 41013    | 4N28       | DIP-6   | Diode, NPN phototransistor                | .46    | .372 | .279      |
| 320565   | 4N31       | DIP-6   | General purpose photodarlington           | .30    | .273 | .205      |
| 41021    | 4N32       | DIP-6   | Diode, NPN photodarlington                | .26    | .24  | .18       |
| 671824   | 4N32S      | SOIC-6  | GAAS IRED and phototransistor             | .45    | .344 | .192      |
| 41030    | 4N33       | DIP-6   | Diode, NPN photodarlington                | .25    | .24  | .22       |
| 41056    | 4N35       | DIP-6   | Diode, NPN phototransistor                | .24    | .216 | .213      |
| 671832   | 4N35S      | SOIC-6  | General purpose phototransistor           | .26    | .202 | .113      |
| 277464   | 4N36       | DIP-6   | General purpose phototransistor           | .19    | .17  | .151      |
| 671841   | 4N37       | SOIC-6  | General purpose phototransistor           | .28    | .212 | .119      |
| 277510   | 6N135      | DIP-8   | High-speed transistor optocoupler         | .63    | .465 | .428      |
| 42471    | 6N136      | DIP-8   | High speed transistor optocoupler         | .52    | .473 | .415      |
| 113911   | 6N137      | DIP-8   | High-speed logic optocoupler              | .59    | .50  | .42       |
| 42489    | 6N138      | DIP-8   | Low input curr., hi-gain split darlington | .73    | .62  | .467      |
| 113929   | 6N139      | DIP-8   | High-speed, high-gain darlington          | .75    | .64  | .479      |
| 320389   | CNY17-1    | DIP-6   | High BVceo phototransistor                | .26    | .225 | .153      |
| 320397   | CNY17-2    | DIP-6   | High BVceo phototransistor                | .27    | .191 | .143      |
| 320400   | CNY17-3    | DIP-6   | High BVceo phototransistor                | .26    | .191 | .153      |
| 320418   | CNY17-4    | DIP-6   | High BVceo phototransistor                | .26    | .221 | .166      |
| 18825    | H11AA1     | DIP-6   | Dual infrared diode, NPN phototransistor  | .54    | .46  | .345      |
| 320434   | H11AA2     | DIP-6   | AC input phototransistor optocoupler      | .35    | .286 | .26       |
| 320442   | H11AA3     | DIP-6   | AC input phototransistor optocoupler      | .34    | .274 | .249      |
| 320573   | H11B1      | DIP-6   | Photodarlington optocoupler               | .28    | .24  | .18       |
| 320581   | H11B2      | DIP-6   | Photodarlington optocoupler               | .30    | .224 | .168      |
| 320602   | H11B3      | DIP-6   | Photodarlington optocoupler               | .36    | .31  | .233      |
| 18833    | H11C3      | DIP-6   | Photo SCR optocoupler                     | .89    | .74  | .61       |
| 320493   | H11D1      | DIP-6   | High voltage phototransistor              | .57    | .485 | .364      |
| 320514   | H11D2      | DIP-6   | High voltage phototransistor              | .44    | .374 | .281      |
| 320522   | H11D3      | DIP-6   | High voltage phototransistor              | .26    | .233 | .21       |
| 113996   | H11F1      | DIP-6   | Isolated FET                              | \$1.79 | 1.55 | 1.26 1.15 |
| 320186   | H11F2      | DIP-6   | Photo FET optocouplers                    | 1.75   | 1.49 | 1.12      |
| 320194   | H11F3      | DIP-6   | Photo FET optocouplers                    | 1.55   | 1.32 | 1.18      |
| 277747   | H11G3      | DIP-6   | High-voltage photodarlington              | .67    | .57  | .428      |
| 113988   | H11L1      | DIP-6   | Schmitt trigger output photocoupler       | .55    | .50  | .49       |
| 320207   | H11L2      | DIP-6   | Photo FET optocouplers                    | .71    | .59  | .48       |
| 114083   | ISO203     | DIP-16  | Quad channel NPN phototransistor          | 2.95   | 2.66 | 1.99      |
| 320477   | MCT2       | DIP-6   | Phototransistor optocoupler               | .42    | .316 | .24       |
| 24918    | MCT6       | DIP-8   | Dual channel NPN phototransistor          | .56    | .52  | .47       |
| 672317   | MCT61      | DIP-8   | Dual channel NPN phototransistor          | .41    | .324 | .269      |
| 672325   | MCT62      | DIP-8   | Dual channel NPN phototransistor          | .48    | .315 | .286      |
| 672333   | MCT9001    | DIP-8   | Dual channel NPN phototransistor          | .54    | .44  | .333      |
| 672245   | MOC205     | SOIC-8  | Optocoupler phototransistor               | .55    | .416 | .233      |
| 672253   | MOC206     | SOIC-8  | Optocoupler phototransistor               | .41    | .299 | .233      |
| 672261   | MOC207     | SOIC-8  | Optocoupler phototransistor               | .34    | .274 | .227      |
| 672270   | MOC208     | SOIC-8  | Optocoupler phototransistor               | .39    | .32  | .278      |
| 672288   | MOC215     | SOIC-8  | Optocoupler phototransistor               | .48    | .324 | .278      |
| 672296   | MOC216     | SOIC-8  | Optocoupler phototransistor               | .41    | .299 | .184      |
| 672309   | MOC217     | SOIC-8  | Optocoupler phototransistor               | .55    | .423 | .232      |
| 26278    | MOC3010    | DIP-6   | Bilateral triac driver                    | .56    | .52  | .345      |
| 95020    | MOC3011    | DIP-6   | Bilateral triac driver                    | .68    | .51  | .388      |
| 671859   | MOC3012S   | SOIC-6  | Random phase triac driver                 | .48    | .35  | .298      |
| 277780   | MOC3020    | DIP-6   | Random phase triac driver                 | .52    | .398 | .31       |
| 671867   | MOC3020S   | SOIC-6  | Random phase triac driver                 | .45    | .382 | .224      |
| 95038    | MOC3021    | DIP-6   | Bilateral triac driver                    | .53    | .45  | .34       |
| 671875   | MOC3021S   | SOIC-6  | Random phase triac driver                 | .45    | .382 | .224      |
| 671883   | MOC3022S   | SOIC-6  | Random phase triac driver                 | .45    | .382 | .224      |
| 277819   | MOC3023    | DIP-6   | Random phase triac driver                 | .38    | .349 | .294      |
| 671904   | MOC3023S   | SOIC-6  | Random phase triac driver                 | .45    | .382 | .291      |
| 26294    | MOC3031    | DIP-6   | Zero crossing triac driver                | .55    | .50  | .45       |
| 113953   | MOC3032    | DIP-6   | Zero crossing triac driver                | .61    | .52  | .47       |
| 277835   | MOC3041    | DIP-6   | Zero crossing triac driver                | .69    | .61  | .458      |

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product

♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

## Optoisolators (Continued)

♣ Blue Part No. = Limited Quantity Available

| Part No. | Cross Ref. | Package | Description                                       | 1      | 10    | 100     |
|----------|------------|---------|---|--------|-------|---------|
| 113961   | MOC3042    | DIP-6   | Zero crossing triac driver                        | \$.65  | \$.55 | \$.413  |
| 277843   | MOC3043    | DIP-6   | Zero crossing triac driver                        | .59    | .502  | .38     |
| 277915   | MOC3061    | DIP-6   | Zero crossing phototriac driver                   | .63    | .536  | .402    |
| 133874   | MOC3063    | DIP-6   | Zero crossing triac driver                        | .76    | .64   | .52     |
| 672165   | MOC3081    | DIP-6   | Zero crossing triac driver                        | .90    | .76   | .55     |
| 320629   | MOC3082    | DIP-6   | Zero crossing optoisolator                        | \$1.00 | .90   | .77 .63 |
| 320611   | MOC3083    | DIP-6   | Zero crossing optoisolator                        | .98    | .83   | .62     |
| 672181   | MOC3163    | DIP-6   | Zero crossing phototriac driver                   | 1.25   | 1.01  | .72     |
| 672190   | MOC8101    | DIP-6   | Optocoupler phototransistor                       | .47    | .359  | .201    |
| 672202   | MOC8102    | DIP-6   | Optocoupler phototransistor                       | .39    | .372  | .236    |
| 672211   | MOC8103    | DIP-6   | Optocoupler phototransistor                       | .39    | .324  | .201    |
| 672229   | MOC8104    | DIP-6   | Optocoupler phototransistor                       | .22    | .21   | .202    |
| 672237   | MOC8106    | DIP-6   | Optocoupler phototransistor                       | .43    | .323  | .181    |
| 672106   | MOC8111    | DIP-6   | Phototransistor, no base                          | .25    | .216  | .151    |
| 672122   | MOC8112    | DIP-6   | Phototransistor, no base                          | .25    | .208  | .16     |
| 672131   | MOC8113    | DIP-6   | Phototransistor, no base                          | .25    | .216  | .151    |
| 672093   | MOC8020    | DIP-6   | Photodarlington optocoupler                       | .44    | .374  | .223    |
| 672069   | MOC8021    | DIP-6   | Photodarlington optocoupler                       | .53    | .398  | .223    |
| 672157   | MOC8030    | DIP-6   | Photodarlington optocoupler                       | .39    | .29   | .235    |
| 672149   | MOC8050    | DIP-6   | Photodarlington optocoupler                       | .54    | .448  | .268    |
| 320653   | PS2501-1   | DIP-4   | Single transistor photocoupler                    | .20    | .19   | .185    |
| 671912   | PS2501L-1  | SOP-4   | Single transistor photocoupler                    | .32    | .274  | .235    |
| 320661   | PS2501-2   | DIP-8   | Single transistor photocoupler                    | .51    | .459  | .418    |
| 671921   | PS2501L-2  | SOP-8   | Single transistor photocoupler                    | .64    | .55   | .47     |
| 160338   | PS2501-4   | DIP-16  | Photo darlington & transistor/detector            | 1.09   | 1.02  | .88     |
| 671939   | PS2501L-4  | SOP-16  | Single transistor photocoupler                    | 1.21   | 1.04  | .89     |
| 320688   | PS2502-1   | DIP-4   | Darlington photocoupler                           | .41    | .39   | .353    |
| 320696   | PS2502-2   | DIP-8   | Darlington photocoupler                           | 1.18   | .96   | .87     |
| 160362   | PS2502-4   | DIP-16  | Photo darlington & transistor/detector            | 1.75   | 1.61  | 1.39    |
| 672034   | PS2503-1   | DIP-4   | Diode, NPN phototransistor                        | .76    | .71   | .428    |
| 672000   | PS2503L-1  | SOP-4   | High speed switching photocoupler                 | .81    | .64   | .59     |
| 672042   | PS2503-2   | DIP-8   | Diode, NPN phototransistor                        | 1.20   | 1.04  | .88     |
| 672018   | PS2503L-2  | SOP-8   | High speed switching photocoupler                 | 1.23   | 1.04  | .90     |
| 672051   | PS2503-4   | DIP-16  | Diode, NPN phototransistor                        | 2.19   | 1.94  | 1.60    |
| 672026   | PS2503L-4  | SOP-16  | High speed switching photocoupler                 | 2.25   | 2.03  | 1.62    |
| 320709   | PS2505-1   | DIP-4   | High isolation voltage photocoupler               | .33    | .281  | .262    |
| 671947   | PS2505L-1  | SOP-4   | High isolation voltage photocoupler               | .38    | .323  | .277    |
| 320717   | PS2505-2   | DIP-8   | High isolation voltage photocoupler               | .79    | .76   | .69     |
| 671955   | PS2505L-2  | SOP-8   | High isolation voltage photocoupler               | 1.00   | .86   | .74     |
| 320725   | PS2505-4   | DIP-16  | High isolation voltage photocoupler               | 1.65   | 1.32  | 1.19    |
| 671971   | PS2505L-4  | SOP-16  | High isolation voltage photocoupler               | 1.65   | 1.49  | 1.19    |
| 320750   | PS2506-1   | DIP-4   | High isolation voltage photocoupler               | .54    | .51   | .462    |
| 320784   | PS2532-1   | DIP-4   | High collector to high emitter volt. photocoupler | .59    | .51   | .38     |
| 320792   | PS2532-2   | DIP-8   | High collector to high emitter volt. photocoupler | 1.09   | .98   | .90     |
| 320805   | PS2532-4   | DIP-16  | High collector to high emitter volt. photocoupler | 1.95   | 1.87  | 1.73    |
| 320821   | PS2561-2   | DIP-8   | High isolation voltage photocoupler               | .75    | .64   | .56     |
| 320830   | PS2561-4   | DIP-16  | High isolation voltage photocoupler               | 2.29   | 1.95  | 1.60    |
| 671980   | PS2561L-4  | SOP-16  | High isolation voltage photocoupler               | .39    | .351  | .294    |

## Optoisolators

NEW

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| Part No. | Cross Ref. | Package | Description                            | * Minimum order 5 pieces |
|----------|------------|---------|--|--------------------------|
| 698912   | MOC3010M   | DIP-6   | Random-phase triac driver output opto. | \$.33 .32                |
| 698921   | MOC3011M   | DIP-6   | Random-phase triac driver output opto. | \$.33 .32                |
| 698939   | MOC3021M   | DIP-6   | Random-phase triac driver output opto. | \$.31 .302               |
| 698947   | MOC3031M   | DIP-6   | Zero-cross triac driver output opto.   | \$.51 .496 .481          |
| 698955   | MOC3032M   | DIP-6   | Zero-cross triac driver output opto.   | \$.51 .496 .481          |
| 698963   | MOC3042M   | DIP-6   | Zero-cross triac driver output opto.   | \$.51 .496 .481          |
| 698971   | MOC3063M   | DIP-6   | Zero-cross phototriac driver opto.     | \$.326 .317              |
| 698998   | MOC3083M   | DIP-6   | Zero-cross triac driver output opto.   | \$.81 .79 .76            |

## Slotted Optical Switches

4-pin w/ tab

| Part No. | Cross Ref. | Package      | Description                         | 1     | 10    | 100   |
|----------|------------|--------------|-------------------------------------|-------|-------|-------|
| 114091   | H21A1      | 4-pin w/ tab | Single channel slotted interrupter  | \$.69 | \$.64 | \$.56 |
| 278011   | H21A2      | 4-pin w/ tab | Phototransistor optical interrupter | .99   | .71   | .58   |
| 320901   | H21A3      | 4-pin w/ tab | Phototransistor optical switch      | .70   | .61   | .47   |
| 278070   | H21B1      | 4-pin w/ tab | Photodarlington optical interrupter | .76   | .70   | .53   |

## TOSHIBA Optocouplers

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### Transistor Output

| Part No. | Product No.     | Package | Curr. Trans Ratio Min. (%) | VCE@IF (VCE@IF) | Collector Bkdw Vlt. (Vbwm) | Iso. Volt. (Vrms) | NEW   |        |        |
|----------|-----------------|---------|----------------------------|-----------------|----------------------------|-------------------|-------|--------|--------|
|          |                 |         |                            |                 |                            |                   | 1     | 10     | 100    |
| 832587   | 4N35SHORT       | DIP-6   | 100                        | 10V@10mA        | 30                         | 2500              | \$.47 | \$.349 | \$.265 |
| 833310   | TLP124BV        | SOIC-4  | 200                        | 5V@1mA          | 80                         | 3750              | .88   | .67    | .51    |
| 833707   | TLP281-4(G,F,T) | SOIC-16 | 100                        | 5V@5mA          | 80                         | 2500              | 1.69  | 1.37   | 1.21   |
| 833862   | TLP620(F,T)     | DIP-4   | 50                         | 5mA             | 55                         | 5000              | .55   | .437   | .331   |
| 833897   | TLP620(G,F,T)   | DIP-4   | 100                        | 5mA             | 55                         | 5000              | .79   | .61    | .47    |
| 833951   | TLP620-4        | DIP-16  | 50                         | 5mA             | 55                         | 5000              | 2.25  | 1.82   | 1.60   |
| 833993   | TLP621          | DIP-4   | 50                         | 5mA             | 55                         | 5000              | .42   | .409   | .398   |
| 834021   | TLP621(BL,F,T)  | DIP-4   | 200                        | 5mA             | 55                         | 5000              | .42   | .363   | .306   |
| 834056   | TLP621(F,T)     | DIP-4   | 50                         | 5V@5mA          | 55                         | 5000              | .50   | .378   | .297   |
| 834072   | TLP621(G,F,T)   | DIP-4   | 100                        | 5mA             | 55                         | 5000              | .50   | .378   | .287   |
| 765222   | TLP621-4(F)     | DIP-16  | 50                         | 5mA             | 55                         | 5000              | 2.05  | 1.67   | 1.47   |
| 834128   | TLP624          | DIP-4   | 100                        | 1mA             | 55                         | 5000              | .92   | .70    | .53    |
| 834179   | TLP624-4        | DIP-16  | 100                        | 1mA             | 55                         | 5000              | 2.19  | 1.77   | 1.73   |
| 834195   | TLP626BV        | DIP-4   | 200                        | 0.5V@1mA        | 55                         | 5000              | .91   | .74    | .66    |
| 834275   | TLP631GB        | DIP-6   | 100                        | 5V@5mA          | 55                         | 5000              | .72   | .61    | .49    |

### High Speed Output

| Part No. | Product No. | Package | Output Curr. Min. | Typ. Data Rate (bits/s) | Max. Supply Voltage | Isolation Voltage | NEW   |       |       |
|----------|-------------|---------|-------------------|-------------------------|---------------------|-------------------|-------|-------|-------|
|          |             |         |                   |                         |                     |                   | 1     | 10    | 100   |
| 764941   | 6N137F      | DIP-8   | 13mA              | 10M                     | 5V                  | 2500              | \$.63 | \$.62 | \$.60 |
| 765089   | TLP115A     | SOIC-6  | 13mA              | 10M                     | 5V                  | 2500              | 3.05  | 2.47  | 2.41  |
| 833791   | TLP550      | DIP-8   | 1.6mA             | 1M                      | 15V                 | 2500              | 1.35  | 1.08  | .95   |
| 765126   | TLP2200F    | DIP-8   | 6.4mA             | 5M                      | 20V                 | 2500              | 2.19  | 2.12  | 2.06  |
| 833619   | TLP2531(F)  | DIP-8   | 3.04mA            | 1M                      | 15V                 | 2500              | 2.59  | 2.12  | 2.07  |
| 833643   | TLP2601     | DIP-8   | 13mA              | 10M                     | 5.5V                | 2500              | 1.95  | 1.57  | 1.38  |
| 765169   | TLP2630(F)  | DIP-8   | 13mA              | 10M                     | 5V                  | 2500              | 2.19  | 1.76  | 1.73  |
| 833678   | TLP2631F    | DIP-8   | 13mA              | 10M                     | 5V                  | 2500              | 2.19  | 1.77  | 1.73  |

### Thyristor Output

| Part No. | Product No.    | Package | LED Trigger | Blocking | Isolation  | 1      | 10    | 100   |
|----------|----------------|---------|-------------|----------|------------|--------|-------|-------|
|          |                |         | Curr. Max.  | Voltage  | Voltage    |        |       |       |
| 833387   | TLP160J        | SOIC-4  | 10mA        | 600      | 2500 ..... | \$1.05 | \$.88 | \$.71 |
| 833408   | TLP161J(U,C,F) | SOIC-4  | 10mA        | 600      | 2500 ..... | .86    | .73   | .59   |
| 833731   | TLP3062S       | DIP-5   | 10mA        | 600      | 5000 ..... | .75    | .57   | .51   |
| 765185   | TLP525G(F)     | DIP-4   | 10mA        | 400      | 2500 ..... | .86    | .73   | .59   |
| 765206   | TLP525G-2(F)   | DIP-8   | 10mA        | 400      | 2500 ..... | 1.45   | 1.18  | 1.04  |

✦ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

## TOSHIBA Optocouplers (Continued)

For more Toshiba Optocouplers visit [www.Jameco.com](http://www.Jameco.com)

### Darlington Transistor Output

| Part No. | Product No.  | Package | LED Trigger | Blocking | Isolation  | NEW   |       |       |
|----------|--------------|---------|-------------|----------|------------|-------|-------|-------|
|          |              |         | Curr. Max.  | Voltage  | Voltage    | 1     | 10    | 100   |
| 765100   | TLP127♣      | SOIC-4  | 1000        | 300      | 2500 ..... | \$.81 | \$.70 | \$.55 |
| 834232   | TLP627(F,T)♣ | DIP-4   | 1000        | 300      | 5000 ..... | .81   | .68   | .55   |
| 834259   | TLP627-2FT♣  | DIP-8   | 1000        | 300      | 5000 ..... | 1.40  | 1.18  | .94   |
| 765257   | TLP627-4F♣   | DIP-16  | 1000        | 300      | 5000 ..... | 2.19  | 1.76  | 1.55  |

## LITEON Optocouplers

For more LiteOn Optocouplers visit [www.Jameco.com](http://www.Jameco.com)

### Photo Transistor Output

| Part No. | Product No.  | Package     | BV <sub>CEO</sub> | Isolation<br>Volt. (RMS) | Curr. Trans.<br>Ratio (Min.) | NEW |        |        |
|----------|--------------|-------------|-------------------|--------------------------|------------------------------|-----|--------|--------|
|          |              |             |                   |                          |                              | 1   | 5      | 50     |
| 790671   | LTV-356T     | Mini-flat 4 | 80                | 3750                     | 50                           | *   | \$.175 | \$.147 |
| 790698   | LTV-357T     | Mini-flat 4 | 35                | 3750                     | 50                           | *   | .182   | .147   |
| 878243   | LTV-817      | DIP-4       | 35                | 5000                     | 50                           | *   | .175   | .139   |
| 790823   | LTV817S-TA   | SOIC-4      | 35                | 5000                     | 50                           | *   | .175   | .139   |
| 790719   | LTV-817S-TA1 | SOIC-4      | 35                | 5000                     | 50                           | *   | .175   | .139   |
| 878260   | LTV-827      | DIP-8       | 35                | 5000                     | 50                           | *   | .349   | .276   |
| 790751   | LTV-845      | DIP-16      | 35                | 5000                     | 600                          | .62 | .61    | .59    |
| 790778   | LTV-846S     | SOIC-16     | 80                | 5000                     | 50                           | .84 | .71    | .56    |
| 878286   | LTV-847      | DIP-16      | 35                | 5000                     | 50                           | .83 | .73    | .55    |
| 790794   | LTV-847S     | SOIC-16     | 35                | 5000                     | 50                           | .84 | .71    | .56    |
| 878163   | CNY17-3S     | SOIC-6      | 70                | 5000                     | 100                          | *   | .20    | .185   |
| 878180   | CNY17F-3     | DIP-6       | 70                | 5000                     | 100                          | *   | .239   | .181   |

### Photo Transistor Output/AC Input

| Part No. | Product No. | Package | BV <sub>CEO</sub> | Isolation<br>Volt. (RMS) | Curr. Trans.<br>Ratio (Min.) | NEW      |      |    |
|----------|-------------|---------|-------------------|--------------------------|------------------------------|----------|------|----|
|          |             |         |                   |                          |                              | 1        | 5    | 50 |
| 878227   | LTV-814♣    | DIP-4   | 35                | 5000                     | 20 .....                     | * .243   | .194 |    |
| 790735   | LTV-824♣    | DIP-8   | 35                | 5000                     | 20 .....                     | .58 .485 | .386 |    |

### Phototriac Output

| Part No. | Product No. | Package | VDRM (V) | Isolation   | Trigger    |        |         |         |
|----------|-------------|---------|----------|-------------|------------|--------|---------|---------|
|          |             |         | Min.     | Volt. (RMS) | Curr. (mA) | 1      | 5       | 50      |
| 878307   | MOC3023     | DIP-6   | 400      | 5000        | ±5         | \$ .52 | \$ .437 | \$ .348 |



## Standard-Output LEDs

More LEDs at [www.Jameco.com/Prod/LEDs](http://www.Jameco.com/Prod/LEDs)

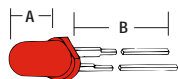


Fig. 1



Fig. 2



Fig. 3



Fig. 4



Quantity SAVE

\* Minimum order 10 pieces

### Standard-Output LEDs

| Dialight |                |      | MCD            |                             | Other Manufacturers — Great Deals |                  |            |      |              |            |             |               |               |         | LITEON |       |        |  |
|----------|----------------|------|----------------|-----------------------------|-----------------------------------|------------------|------------|------|--------------|------------|-------------|---------------|---------------|---------|--------|-------|--------|--|
| Part No. | Cross Ref. No. | Fig. | Emitting Color | Lens/Feature Description    | LED Size                          | Diameter inch/mm | Dimensions |      | Lead Spacing | Typical Vf | Typical mcd | Wavelength nm | Viewing Angle | Pricing |        |       |        |  |
|          |                |      |                |                             |                                   |                  | A"         | B"   |              |            |             |               |               | 1       | 10     | 100   | 1000   |  |
| 202471   | MVL-301HR      | 1    | Orange Red     | Red diffused                | T1                                | 0.119/3          | 0.14       | 1.12 | 0.10         | 2.0        | 9.0         | 640           | N/A           | *       | \$.062 | \$.05 | \$.038 |  |
| 135597   | LTL307E*       | 1    | Orange Red     | Red diffused                | T1 3/4                            | 0.197/5          | 0.34       | 1.00 | 0.07         | 2.0        | 19          | 635           | N/A           | *       | .12    | .096  | .072   |  |
| 693901   | MCDL-5013GD    | 1    | Green          | Red diffused                | T1 3/4                            | 0.197/5          | 0.34       | 1.04 | 0.10         | 2.1        | 12.5        | 565           | 60            | *       | .08    | .06   | .05    |  |
| 320282   | 566-0306       | 2    | Yellow         | Yellow diffused rectangular | 2 x 5mm                           | —                | 0.28       | 0.11 | 0.10         | 2.1        | 3.5         | 583           | N/A           | .89     | .76    | .46   | .345   |  |
| 320274   | 566-0206       | 2    | Green          | Green diffused rectangular  | 2 x 5mm                           | —                | 0.28       | 0.11 | 0.10         | 2.2        | 4           | 565           | N/A           | .88     | .74    | .53   | .399   |  |
| 320291   | 566-0406       | 2    | Red            | Red diffused rectangular    | 2 x 5mm                           | —                | 0.28       | 0.11 | 0.10         | 2.0        | 7.4         | 635           | N/A           | .89     | .76    | .46   | .345   |  |
| 658291   | MSL-194DR      | 3    | Red            | Water clear                 | SMD0603                           | —                | 0.03       | 0.06 | —            | 1.8        | 20          | 660           | 130           | *       | .09    | .075  | .065   |  |
| 658304   | MSL-174DR      | 3    | Red            | Water clear                 | SMD0805                           | —                | 0.05       | 0.08 | —            | 1.8        | 20          | 660           | 130           | *       | .09    | .075  | .065   |  |
| 658283   | MSL-154G       | 3    | Green          | Water clear                 | SMD1206                           | —                | 0.06       | 0.13 | —            | 2.2        | 6.5         | 570           | 130           | *       | .12    | .10   | .09    |  |
| 658312   | MSL-154DR      | 3    | Red            | Water clear                 | SMD1206                           | —                | 0.06       | 0.13 | —            | 1.8        | 25          | 660           | 130           | *       | .12    | .10   | .09    |  |
| 658321   | MSL-204DR      | 4    | Red            | Water clear                 | PLCC-2                            | —                | 0.11       | 0.13 | —            | 1.8        | 50          | 657           | 120           | .49     | .45    | .41   | .37    |  |
| 658339   | MSL-204Y       | 4    | Yellow         | Water clear                 | PLCC-2                            | —                | 0.08       | 0.13 | —            | 2.1        | 182         | 590           | 120           | .39     | .37    | .33   | .19    |  |
| 692537   | MSL-204G       | 4    | Green          | Water clear                 | PLCC-2                            | —                | 0.11       | 0.13 | —            | 2.1        | 15          | 570           | 120           | .49     | .45    | .35   | .29    |  |
| 658355   | MSL-204MB      | 4    | Blue           | Water clear                 | PLCC-2                            | —                | 0.11       | 0.13 | —            | 3.5        | 120         | 468           | 120           | 1.09    | .99    | .89   | .69    |  |
| 658347   | MSL-204MW      | 4    | White          | Water clear                 | PLCC-2                            | —                | 0.08       | 0.13 | —            | 3.5        | 400         | —             | 120           | 1.09    | .99    | .89   | .69    |  |

\*10 pcs. in LEDs & LED Mounting Hardware cabinet kit, pg 49

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



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LITEON

## Standard & SMD LEDs

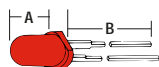


Fig. 1

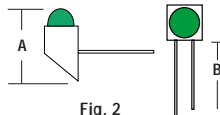


Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6

Minimum order 5 pieces

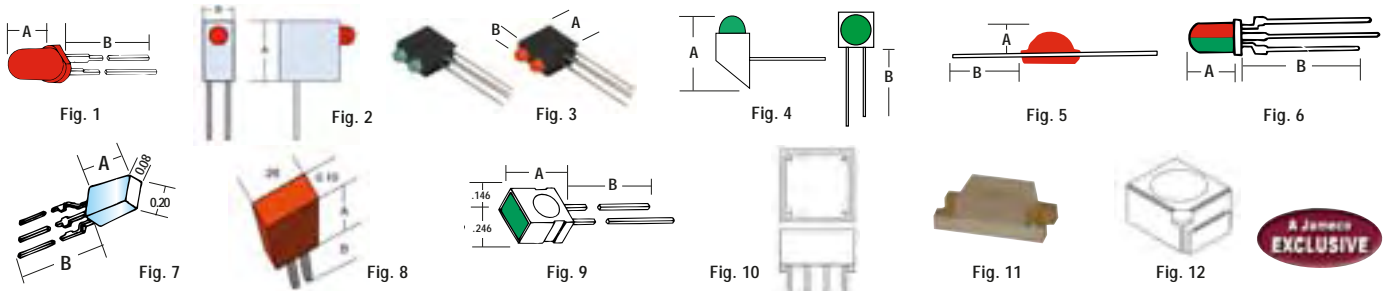
| Part No. | Cross Ref. No.  | Fig. | Emitting Color | Lens/Feature Description            | LED Size   | Diameter inch/mm | Dimensions |       | Lead Spacing | Typical Vf | Typical mcd | WaveLength nm | Viewing Angle | Pricing |         |
|----------|-----------------|------|----------------|-------------------------------------|------------|------------------|------------|-------|--------------|------------|-------------|---------------|---------------|---------|---------|
|          |                 |      |                |                                     |            |                  | A"         | B"    |              |            |             |               |               | 5       | 50      |
| 697514   | LTL-2935JW R    | 1    | Red/Yellow     | Clear, bi-color                     | T1         | 0.119/3          | 0.18       | 1.0   | 0.1          | 2.0        | 15          | 635/585       | —             | \$ .293 | \$ .233 |
| 697670   | LTL-4251 R      | 1    | Yellow         | Diffused                            | T1         | 0.119/3          | 0.18       | 1.0   | 0.1          | 2.1        | 8.7         | 585           | 40            | .087    | .077    |
| 697688   | LTL-4251N R     | 1    | Yellow         | Yellow diffused                     | T1         | 0.119/3          | 0.18       | 1.0   | 0.1          | 2.1        | 5.6         | 585           | 60            | .087    | .077    |
| 790145   | LTL-1CHY R      | 1    | Yellow         | Yellow diffused                     | T1         | 0.122/3.1        | 0.205      | 1.0   | 0.1          | 2.1        | 8.7         | 588           | 60            | .087    | .078    |
| 790330   | LTL-4256N R     | 1    | Yellow         | Water clear                         | T1         | 0.118/3          | 0.175      | 1.0   | 0.1          | 2.1        | 40          | 588           | 45            | .087    | .078    |
| 790129   | LTL-1CHE R      | 1    | Hi-eff Red     | Red diffused                        | T1         | 0.119/3          | 0.205      | 1.0   | 0.1          | 2.0        | 12.6        | 623           | 60            | .071    | .057    |
| 697565   | LTL-4211N R     | 1    | Hi-eff Red     | Red diffused                        | T1         | 0.119/3          | 0.18       | 1.0   | 0.1          | 2.0        | 8.7         | 635           | 60            | .087    | .077    |
| 697590   | LTL-4221N R     | 1    | Hi-eff Red     | Red diffused                        | T1         | 0.119/3          | 0.18       | 1.0   | 0.1          | 2.0        | 8.7         | 635           | 60            | .042    | .041    |
| 790241   | LTL-4221NLC R   | 1    | Hi-eff Red     | Red diffused                        | T1         | 0.118/3          | 0.175      | 1.0   | 0.1          | 1.8        | 1.8         | 635           | 45            | .223    | .206    |
| 790250   | LTL-4222N R     | 1    | Hi-eff Red     | Red transparent                     | T1         | 0.118/3          | 0.175      | 1.0   | 0.1          | 2.0        | 29          | 635           | 45            | .087    | .078    |
| 697581   | LTL-4221 R      | 1    | Red            | Red diffused                        | T1         | 0.119/3          | 0.18       | 1.0   | 0.1          | 2.0        | 8.7         | 635           | 40            | .087    | .077    |
| 697629   | LTL-4231 R      | 1    | Green          | Green diffused                      | T1         | 0.119/3          | 0.18       | 1.0   | 0.1          | 2.1        | 12.6        | 565           | 60            | .071    | .056    |
| 697637   | LTL-4231N R     | 1    | Green          | Green diffused                      | T1         | 0.119/3          | 0.18       | 1.0   | 0.1          | 2.1        | 12.6        | 565           | 60            | .087    | .077    |
| 790111   | LTL-16KG R      | 1    | Green          | Green diffused                      | T1         | 0.119/3          | 0.205      | 1.0   | 0.1          | 2.1        | 12.6        | 565           | —             | .042    | .041    |
| 790137   | LTL-1CHG R      | 1    | Green          | Green diffused                      | T1         | 0.119/3          | 0.205      | 1.0   | 0.1          | 2.1        | 12.6        | 569           | 60            | .071    | .057    |
| 790284   | LTL-4231N-1 R   | 1    | Green          | Diffused                            | T1         | 0.118/3          | 0.175      | 1.0   | 0.1          | 2.1        | 5.6         | 565           | 60            | .087    | .078    |
| 790292   | LTL-4231NLC R   | 1    | Green          | Diffused                            | T1         | 0.118/3          | 0.175      | 1.0   | 0.1          | 1.9        | 1.1         | 565           | 60            | .126    | .118    |
| 790313   | LTL-4236N R     | 1    | Green          | Water clear                         | T1         | 0.118/3          | 0.175      | 1.0   | 0.1          | 2.1        | 40          | 569           | 45            | .087    | .078    |
| 697645   | LTL-4232N R     | 1    | Green          | Transparent                         | T1         | 0.119/3          | 0.18       | 1.0   | 0.1          | 2.1        | 40          | 565           | 45            | .087    | .077    |
| 697549   | LTL-307Y R      | 1    | Yellow         | Yellow diffused                     | T1 3/4     | 0.197/5          | 0.34       | 0.9   | 0.1          | 2.1        | 29          | 585           | —             | .071    | .056    |
| 697696   | LTL-4253 R      | 1    | Yellow         | Diffused                            | T1 3/4     | 0.197/5          | 0.34       | 0.9   | 0.1          | 2.1        | 19          | 585           | 36            | .087    | .077    |
| 697709   | LTL-4254 R      | 1    | Yellow         | Transparent                         | T1 3/4     | 0.197/5          | 0.34       | 0.9   | 0.1          | 2.1        | 90          | 585           | 16            | .087    | .077    |
| 790102   | LTL-10253W R    | 1    | Yellow         | Yellow diffused                     | T1 3/4     | 0.187/4.75       | 0.283      | 1.0   | 0.1          | 2.1        | 12.6        | 588           | 60            | .071    | .057    |
| 697522   | LTL-307E R      | 1    | Hi-eff Red     | Red diffused                        | T1 3/4     | 0.197/5          | 0.34       | 0.9   | 0.1          | 2.0        | 19          | 635           | 50            | .071    | .057    |
| 790081   | LTL-10223W R    | 1    | Hi-eff Red     | Red diffused                        | T1 3/4     | 0.187/4.75       | 0.283      | 1.0   | 0.1          | 2.0        | 60          | 623           | 60            | .07     | .056    |
| 790209   | LTL-307ELC R    | 1    | Hi-eff Red     | Red diffused                        | T1 3/4     | 0.197/5          | 0.34       | 1.0   | 0.1          | 1.8        | 3           | 635           | 50            | .223    | .206    |
| 790372   | LTL-5223 R      | 1    | Hi-eff Red     | Red diffused                        | T1 3/4     | 0.197/5          | 0.34       | 1.0   | 0.1          | 2.0        | 5.6         | 623           | 64            | .087    | .084    |
| 697602   | LTL-4223 R      | 1    | Red            | Diffused                            | T1 3/4     | 0.197/5          | 0.34       | 0.9   | 0.1          | 2.0        | 19          | 635           | 36            | .087    | .077    |
| 697611   | LTL-4224 R      | 1    | Red            | Transparent                         | T1 3/4     | 0.197/5          | 0.34       | 0.9   | 0.1          | 2.0        | 90          | 635           | 16            | .087    | .077    |
| 790401   | LTL2R3SEK R     | 1    | Red            | Clear                               | T1 3/4     | 0.197/5          | 0.33       | 1.0   | 0.1          | 2.0        | 3700        | 639           | 30            | .335    | .27     |
| 790348   | LTL-4263 R      | 1    | Red            | Red diffused                        | T1 3/4     | 0.197/5          | 0.34       | 1.0   | 0.1          | 1.8        | 90          | 660           | 40            | .184    | .167    |
| 790225   | LTL-307P R      | 1    | Bright Red     | Red diffused                        | T1 3/4     | 0.197/5          | 0.34       | 1.0   | 0.1          | 2.1        | 1.1         | 697           | 50            | .071    | .057    |
| 697557   | LTL-30EFJ R     | 1    | Red/Green      | Bi-color diffused                   | T1 3/4     | 0.197/5          | 0.34       | 0.9   | 0.1          | 2.1        | 5.6/19      | 697/565       | 30            | .284    | .223    |
| 697573   | LTL-4213 R      | 1    | Red            | Diffused                            | T1 3/4     | 0.197/5          | 0.34       | 0.9   | 0.1          | 2.1        | 3.7         | 697           | 36            | .071    | .057    |
| 697531   | LTL-307G R      | 1    | Green          | Green diffused                      | T1 3/4     | 0.197/5          | 0.34       | 0.9   | 0.1          | 2.1        | 19          | 565           | 50            | .071    | .055    |
| 697653   | LTL-4233 R      | 1    | Green          | Diffused                            | T1 3/4     | 0.197/5          | 0.34       | 0.9   | 0.1          | 2.1        | 19          | 565           | 36            | .087    | .077    |
| 697661   | LTL-4234 R      | 1    | Green          | Transparent                         | T1 3/4     | 0.197/5          | 0.34       | 0.9   | 0.1          | 2.1        | 60          | 565           | 16            | .67     | .058    |
| 790090   | LTL-10233W R    | 1    | Green          | Green diffused                      | T1 3/4     | 0.187/4.75       | 0.28       | 1.0   | 0.1          | 2.1        | 40          | 569           | 60            | .071    | .057    |
| 790217   | LTL-307GE R     | 1    | Green          | Green transparent                   | T1 3/4     | 0.197/5          | 0.34       | 1.0   | 0.1          | 2.1        | 60          | 569           | 40            | .071    | .05     |
| 790321   | LTL-4238 R      | 1    | Green          | Water clear                         | T1 3/4     | 0.197/5          | 0.34       | 1.0   | 0.1          | 2.1        | 90          | 569           | 16            | .087    | .078    |
| 790381   | LTL-553-11 R    | 2    | Green          | Green diffused (PCB mnt indicator)  | T1 3/4     | 0.189/4.8        | 0.236      | 0.32  | 0.1          | 2.1        | 40          | 569           | 60            | .12     | .116    |
| 790399   | LTL-709E R      | 3    | Hi-eff Red     | Red diffused (1.8mm Dot Point Lamp) | 1.8mm      | 0.2/1.8          | 0.30       | 0.236 | 0.1          | 2.0        | 12.6        | 623           | 38            | .134    | .108    |
| 697717   | LTL-523-11 R    | 2    | Hi-eff Red     | Red diffused (PCB mnt indicator)    | —          | 0.189/4.8        | 0.13       | 0.35  | 0.1          | 2.0        | 60          | 635           | 60            | .173    | .157    |
| 697725   | LTL-533-11 R    | 2    | Green          | Green diffused (PCB mnt indicator)  | —          | 0.189/4.8        | 0.13       | 0.35  | 0.1          | 2.1        | 40          | 565           | 60            | .173    | .157    |
| 790364   | LTL-433HR R     | 4    | Hi-eff Red     | Red diffused (rectangular)          | —          | 2mmx5mm          | 0.295      | 1.0   | 0.1          | 2.0        | 1.7         | 635           | 140           | .116    | .098    |
| 790356   | LTL-433G R      | 4    | Green          | Green diffused (rectangular)        | —          | 2mmx5mm          | 0.295      | 1.0   | 0.1          | 2.1        | 1.7         | 565           | 140           | .116    | .098    |
| 697813   | LTST-C190YKT R  | 5    | Yellow         | Clear                               | SMD 0603   | —                | 0.03       | 0.06  | —            | 2.1        | 6           | 585           | 130           | .073    | .058    |
| 697805   | LTST-C190GKT R  | 5    | Green          | Water clear                         | SMD 0603   | —                | 0.03       | 0.06  | —            | 2.1        | 6           | 565           | 130           | .073    | .058    |
| 697792   | LTST-C170YKT R  | 5    | Yellow         | Clear                               | SMD 0805   | —                | 0.05       | 0.05  | —            | 2.1        | 2           | 585           | 130           | .091    | .087    |
| 697784   | LTST-C170KRKT R | 5    | Red            | Water clear                         | SMD 0805   | —                | 0.05       | 0.08  | —            | 2.0        | 54          | 639           | 130           | .125    | .105    |
| 697768   | LTST-C170GKT R  | 5    | Green          | Water clear                         | SMD 0805   | —                | 0.05       | 0.08  | —            | 2.1        | 6           | 565           | 130           | .091    | .071    |
| 697776   | LTST-C170KGT R  | 5    | Green          | Water clear                         | SMD 0805   | —                | 0.05       | 0.08  | —            | 2.0        | 35          | 574           | 130           | .125    | .105    |
| 697848   | LTST-S220GKT R  | 5    | Green          | Clear                               | SMD 0805   | —                | 0.05       | 0.08  | —            | 2.1        | 10          | 565           | 130           | .107    | .089    |
| 697733   | LTST-C150CKT R  | 5    | Red            | Clear                               | SMD 1206   | —                | 0.06       | 0.13  | —            | 1.8        | 25          | 660           | 130           | .093    | .073    |
| 697750   | LTST-C150KRKT R | 5    | Red            | Water clear                         | SMD 1206   | —                | 0.06       | 0.13  | —            | 2.0        | 54          | 639           | 130           | .122    | .101    |
| 697741   | LTST-C150GKT R  | 5    | Green          | Water clear                         | SMD 1206   | —                | 0.06       | 0.13  | —            | 2.1        | 6           | 565           | 130           | .085    | .067    |
| 697821   | LTST-C930KGT R  | 6    | Green          | Water clear                         | 1.8mm Dome | 0.07/1.8         | 0.09       | 0.13  | —            | 2.0        | 600         | 574           | 25            | .155    | .136    |
| 697830   | LTST-C930KRKT R | 6    | Red            | Water clear                         | 1.8mm Dome | 0.07/1.8         | 0.09       | 0.13  | —            | 2.0        | 850         | 639           | 130           | .151    | .126    |

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product

♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.



## Standard-Output LEDs

Call for OEM PRICING – we carry major manufacturers.

Quantity SAVE

\* Minimum order 10 pieces

| Part No. | Cross Ref. No.   | Fig. | Emitting Color | Lens/Feature Description                      | LED Size | Diameter inch/mm | Dimensions |      | Lead Spacing | Typical Vf | Typical mcd | Wavelength nm | Viewing Angle | Pricing |       |        |       |
|----------|------------------|------|----------------|---|----------|------------------|------------|------|--------------|------------|-------------|---------------|---------------|---------|-------|--------|-------|
|          |                  |      |                |   |          |                  | A*         | B*   |              |            |             |               |               | 1       | 10    | 100    | 1000  |
| 333219   | LY12340          | 1    | Yellow         | Yellow diffused                               | T1       | 0.119/3          | 0.13       | 0.98 | 0.10         | 1.7        | 6.5         | 585           | 112           | *       | \$.08 | \$.063 | \$.06 |
| 334211   | LA16BY           | 2    | Yellow         | Yellow diffused PCB mount indicators          | T1       | 0.119/3          | 0.29       | 0.18 | 0.10         | 1.7        | 12          | 585           | 50            | .26     | .241  | .124   | .093  |
| 34657    | LY2040           | 1    | Yellow         | Yellow diffused (XC209Y)                      | T1       | 0.119/3          | 0.16       | 0.68 | 0.08         | 2.3        | 15          | 585           | 36            | *       | .13   | .11    | .075  |
| 333885   | UT6331-4         | 1    | Yellow         | Yellow diffused                               | T1       | 0.119/3          | 0.17       | 0.98 | 0.10         | 2.1        | 24          | 589           | 55            | *       | .088  | .069   | .049  |
| 333294   | LVY2643-1        | 1    | Yellow         | Water clear                                   | T1       | 0.119/3          | 0.13       | 0.98 | 0.10         | 1.7        | 350         | 595           | 40            | .21     | .184  | .147   | .11   |
| 206480   | LVY2041          | 1    | Yellow         | Yellow transparent                            | T1       | 0.119/3          | 0.17       | 0.69 | 0.08         | 2.3        | 450         | 595           | 30            | *       | .14   | .12    | .10   |
| 136282   | LA44B/2I         | 3    | Orange         | Red diffused (dual)                           | T1       | 0.119/3          | 0.38       | 0.17 | 0.10         | 1.7        | 12          | 635           | 50            | .39     | .36   | .312   | .234  |
| 333198   | LE12340          | 1    | Hi-eff Red     | Orange diffused                               | T1       | 0.119/3          | 0.13       | 0.98 | 0.10         | 1.7        | 6.5         | 635           | 112           | *       | .108  | .092   | .057  |
| 333171   | HMP-K155-JV      | 1    | Red            | Red clear                                     | T1       | 0.119/3          | 0.19       | 1.04 | 0.10         | 1.6        | 3.0         | 660           | 45            | *       | .079  | .078   | .051  |
| 333851   | UT6371-41-M1     | 1    | Red            | Red diffused                                  | T1       | 0.119/3          | 0.17       | 0.98 | 0.10         | 1.7        | 63          | 660           | 47            | *       | .098  | .064   | .061  |
| 333251   | LSR2643-1        | 1    | Red            | Water clear                                   | T1       | 0.119/3          | 0.13       | 0.98 | 0.10         | 1.5        | 120         | 660           | 40            | *       | .167  | .109   | .082  |
| 333260   | LHR2643-1        | 1    | Red            | Water clear                                   | T1       | 0.119/3          | 0.13       | 0.98 | 0.10         | 1.5        | 300         | 660           | 40            | .24     | .162  | .129   | .097  |
| 206498   | LHR2041          | 1    | Red            | Red transparent                               | T1       | 0.119/3          | 0.17       | 0.69 | 0.08         | 2.0        | 350         | 660           | 30            | *       | .15   | .12    | .09   |
| 334203   | LA16B/H          | 2    | Red            | Red diffused PCB mount indicators             | T1       | 0.119/3          | 0.29       | 0.18 | 0.10         | 1.7        | 4.2         | 697           | 50            | *       | .14   | .11    | .083  |
| 94529    | LH2040           | 1    | Red            | Red diffused (XC209RB)                        | T1       | 0.119/3          | 0.18       | 1.04 | 0.07         | 2.3        | 4.5         | 697           | 36            | .21     | .19   | .15    | .12   |
| 114673   | LH2043           | 1    | Red            | Water clear (BR209)                           | T1       | 0.119/3          | 0.14       | 0.98 | 0.07         | 2.3        | 12          | 697           | 30            | .21     | .19   | .152   | .114  |
| 94553    | LHG2062          | 1    | Red/Green      | White diffused bi-color/bi-state <sup>1</sup> | T1       | 0.119/3          | 0.18       | 1.06 | 0.08         | 2.3        | 3 & 15      | 697/565       | 36            | .29     | .25   | .21    | .16   |
| 333392   | UT6341-41        | 1    | Orange         | Orange diffused                               | T1       | 0.119/3          | 0.17       | 0.94 | 0.10         | 2.1        | 35          | 630           | 55            | .22     | .182  | .084   | .068  |
| 333833   | LI12340          | 1    | Orange         | Red diffused                                  | T1       | 0.119/3          | 0.16       | 0.98 | 0.10         | 1.7        | 6.5         | 635           | 112           | *       | .081  | .066   | .059  |
| 34606    | LSG2040          | 1    | Green          | Green diffused (XC209G)                       | T1       | 0.119/3          | 0.13       | 1.05 | 0.08         | 2.2        | 15          | 560           | 50            | *       | .15   | .11    | .08   |
| 333201   | LG12340          | 1    | Green          | Green diffused                                | T1       | 0.119/3          | 0.13       | 0.98 | 0.10         | 1.7        | 9.6         | 565           | 112           | *       | .08   | .063   | .06   |
| 334220   | LA16B/G          | 2    | Green          | Green diffused PCB mount indicators           | T1       | 0.119/3          | 0.29       | 0.18 | 0.10         | 1.7        | 15          | 565           | 50            | .32     | .287  | .146   | .109  |
| 136274   | LA44B/2G         | 3    | Green          | Green diffused (dual)                         | T1       | 0.119/3          | 0.38       | 0.17 | 0.10         | 2.3        | 15          | 565           | 50            | .73     | .486  | .398   | .358  |
| 175679   | LVG2041          | 1    | Green          | Green transparent                             | T1       | 0.119/3          | 0.17       | 0.69 | 0.08         | 2.2        | 129         | 565           | 30            | *       | .07   | .06    | .05   |
| 114681   | LVG2043          | 1    | Green          | Water clear (BG209)                           | T1       | 0.119/3          | 0.14       | 0.98 | 0.07         | 2.2        | 129         | 565           | 30            | *       | .09   | .07    | .055  |
| 137411   | LVB2040          | 1    | Blue           | Blue diffused                                 | T1       | 0.119/3          | 0.21       | 0.98 | 0.10         | 4.8        | 10          | 430           | 50            | 2.09    | 1.91  | 1.66   | 1.57  |
| 334457   | LSBI2640         | 1    | Blue           | Blue diffused                                 | T1       | 0.119/3          | 0.17       | 0.98 | 0.10         | 3.8        | 50          | 430           | —             | .83     | .69   | .66    | .64   |
| 333383   | UT63B1-41-M1A2   | 1    | Blue           | Blue diffused                                 | T1       | 0.119/3          | 0.17       | 0.98 | 0.10         | 3.8        | 50          | 466           | 54            | .75     | .72   | .68    | .66   |
| 34825    | LY3330           | 1    | Yellow         | Yellow diffused (XC556Y)                      | T1 3/4   | 0.197/5          | 0.30       | 0.82 | 0.07         | 2.3        | 12          | 585           | 36            | .21     | .19   | .15    | .12   |
| 104264   | LA93B/Y-1        | 4    | Yellow         | Yellow diffused (XC410Y)                      | T1 3/4   | 0.197/5          | 0.35       | 0.89 | 0.08         | 2.3        | 25          | 585           | 46            | .36     | .324  | .259   | .194  |
| 334406   | LY9033           | 5    | Yellow         | Water clear                                   | T1 3/4   | 0.197/5          | 0.05       | 0.27 | 0.03         | 1.7        | 30          | 585           | 20            | .20     | .185  | .176   | .132  |
| 334108   | UT1831-81-S      | 1    | Yellow         | Yellow diffused                               | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 2.1        | 16.4        | 589           | 44            | *       | .098  | .064   | .061  |
| 333965   | UT1834-81-S      | 1    | Yellow         | Yellow Clear                                  | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 2.1        | 55.8        | 589           | 22            | *       | .098  | .069   | .049  |
| 334385   | UT1833-81-M181   | 1    | Yellow         | Water clear                                   | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 2.1        | 450         | 590           | 10            | *       | .11   | .064   | .048  |
| 333622   | LHY3330/HO       | 1    | Yellow         | Yellow diffused                               | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.7        | 350         | 595           | 40            | .28     | .248  | .223   | .201  |
| 334377   | UT1841R-81       | 1    | Hi-eff Red     | Red diffused                                  | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 2.1        | 23.1        | 630           | 44            | *       | .098  | .064   | .061  |
| 334060   | UT1841R-81-S     | 1    | Hi-eff Red     | Red diffused                                  | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 2.1        | 23.1        | 630           | 44            | *       | .108  | .094   | .07   |
| 333921   | UT1844R-81-S     | 1    | Hi-eff Red     | Red clear                                     | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 2.1        | 78.8        | 630           | 22            | *       | .098  | .069   | .049  |
| 334271   | LA93B/I          | 4    | Hi-eff Red     | Red diffused PCB mount indicators             | T1 3/4   | 0.197/5          | 0.36       | 0.15 | 0.10         | 1.7        | 25          | 635           | 46            | .30     | .23   | .165   | .149  |
| 34711    | LEG3362          | 1    | Red/Green      | White diffused bi-color/bi-state <sup>1</sup> | T1 3/4   | 0.197/5          | 0.30       | 1.01 | 0.09         | 2.3        | 7.5         | 635/565       | 30            | .33     | .28   | .22    | .19   |
| 333973   | UT1871-81-M1     | 1    | Red            | Red diffused                                  | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.7        | 75          | 660           | 25            | *       | .098  | .064   | .061  |
| 334115   | UT1872-81-M1     | 1    | Red            | White diffused                                | T1 3/4   | 0.197/5          | 0.34       | 1.00 | 0.10         | 1.7        | 75          | 660           | 25            | *       | .146  | .116   | .087  |
| 333462   | LHR3330/HO/A     | 1    | Red            | Red diffused                                  | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.5        | 220         | 660           | 40            | *       | .14   | .132   | .099  |
| 334035   | UT1871-81-UR-P18 | 1    | Red            | Red diffused                                  | T1 3/4   | 0.197/5          | 0.34       | 0.94 | 0.10         | 1.9        | 250         | 660           | 25            | *       | .098  | .082   | .078  |
| 333489   | LUR3330/HO/A     | 1    | Red            | Red diffused                                  | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.5        | 380         | 660           | 40            | .20     | .18   | .144   | .108  |
| 94511    | LH3330           | 1    | Red            | Red diffused (XC556RB)                        | T1 3/4   | 0.197/5          | 0.31       | 0.81 | 0.08         | 2.3        | 3           | 697           | 36            | .19     | .17   | .13    | .10   |
| 104248   | LA93B/H-1        | 4    | Red            | Red diffused (XC410R)                         | T1 3/4   | 0.197/5          | 0.35       | 0.89 | 0.08         | 2.3        | 6.5         | 697           | 46            | .26     | .23   | .19    | .17   |
| 34745    | LH3333           | 1    | Red            | Water clear (XC554R)                          | T1 3/4   | 0.197/5          | 0.30       | 1.00 | 0.08         | 2.3        | 7.5         | 697           | 20            | *       | .15   | .11    | .065  |
| 334174   | LHI3360          | 6    | Red/Orange     | Red diff. bi-color/solid state <sup>1</sup>   | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.7        | 2.0 & 3.0   | 697/635       | 30            | .25     | .213  | .128   | .096  |
| 334182   | LGH3362          | 6    | Red/Green      | White diff. bi-color/solid state <sup>1</sup> | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.7        | 2.0 & 8.0   | 697/565       | 30            | .23     | .222  | .146   | .104  |

\* 10 pcs. in LEDs &amp; LED Mounting Hardware cabinet kit, pg 49

<sup>1</sup> Reverse polarity to change color

Mounting Hardware listed on pages 46-49

RoHS compliant product 
 This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. 
 [Details on page 1.](#)

# Standard-Output LEDs (Continued)



RoHS Compliant Product  
RoHS Also Available

Details on Page 1

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |

Call for OEM PRICING – we carry major manufacturers.



## Standard-Output LEDs (Continued)

Quantity SAVE



# See pg 43 for figures  
\* Minimum order 10 pieces

| Part No. | Cross Ref. No.   | # Fig. | Emitting Color | Lens/Feature Description                    | LED Size  | Diameter inch/mm | Dimensions |      | Lead Spacing | Typical Vf | Typical mcd | Wavelength nm | Viewing Angle | Pricing |        |        |        |
|----------|------------------|--------|----------------|---|-----------|------------------|------------|------|--------------|------------|-------------|---------------|---------------|---------|--------|--------|--------|
|          |                  |        |                |   |           |                  | A"         | B"   |              |            |             |               |               | 1       | 10     | 100    | 1000   |
| 34673    | LHG3392          | 6      | Red/Green      | White diff. bi-color/tri-state <sup>1</sup> | T1 3/4    | 0.197/5          | 0.30       | 1.02 | 0.03         | 2.3        | 3 & 12      | 697/565       | 70            | \$ .24  | \$ .22 | \$ .20 | \$ .14 |
| 333244   | UT2462-24-D51    | 6      | Orange/Green   | White diff. bi-color/tri-state <sup>1</sup> | T1 3/4    | 0.197/5          | 0.30       | 0.80 | 0.10         | 2.1        | 11.7        | 630/572       | 70            | .23     | .219   | .119   | .104   |
| 333235   | LI13530          | 1      | Orange         | Red diffused                                | T1 3/4    | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.7        | 15          | 635           | 70            | *       | .16    | .128   | .076   |
| 334001   | LI3330           | 1      | Orange         | Orange diffused                             | T1 3/4    | 0.197/5          | 0.35       | 1.00 | 0.10         | 1.7        | 24          | 635           | 36            | *       | .112   | .079   | .059   |
| 333913   | LE3331           | 1      | Orange         | Orange transparent                          | T1 3/4    | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.7        | 75          | 635           | 20            | *       | .065   | .058   | .045   |
| 34761    | LG3330           | 1      | Green          | Green diffused (XC556G)                     | T1 3/4    | 0.197/5          | 0.31       | 0.79 | 0.09         | 2.3        | 12          | 565           | 36            | *       | .15    | .14    | .10    |
| 334086   | LG13740          | 1      | Green          | Green diffused                              | T1 3/4    | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.7        | 20          | 565           | 68            | *       | .098   | .064   | .061   |
| 333227   | LG13530          | 1      | Hi-eff Green   | Green diffused                              | T1 3/4    | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.7        | 25          | 565           | 70            | *       | .16    | .128   | .072   |
| 104256   | LA93B/G-1        | 4      | Green          | Green diffused (XC410G)                     | T1 3/4    | 0.197/5          | 0.35       | 0.89 | 0.08         | 2.3        | 30          | 565           | 46            | .26     | .23    | .19    | .17    |
| 11359    | LG3333           | 1      | Green          | Water clear (BG5704)                        | T1 3/4    | 0.197/5          | 0.30       | 1.04 | 0.07         | 2.3        | 100         | 565           | 20            | *       | .15    | .128   | .096   |
| 333956   | LG3331           | 1      | Green          | Green transparent                           | T1 3/4    | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.7        | 150         | 565           | 20            | *       | .098   | .064   | .061   |
| 333534   | LVG3333/S46      | 1      | Green          | Water clear                                 | T1 3/4    | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.7        | 220         | 565           | 30            | *       | .168   | .134   | .10    |
| 334393   | UT1821-81-S      | 1      | Green          | Green diffused                              | T1 3/4    | 0.197/5          | 0.35       | 1.00 | 0.10         | 2.1        | 20          | 572           | 44            | *       | .098   | .064   | .061   |
| 333949   | UT1824-81-S      | 1      | Green          | Water clear                                 | T1 3/4    | 0.197/5          | 0.34       | 0.98 | 0.10         | 2.1        | 68.1        | 572           | 22            | *       | .108   | .069   | .049   |
| 138691   | LVB3330          | 1      | Blue           | Blue diffused                               | T1 3/4    | 0.197/5          | 0.34       | 0.98 | 0.10         | 4.8        | 10          | 430           | 36            | \$1.95  | 1.75   | 1.58   | 1.26   |
| 137613   | LSBI3333         | 1      | Blue           | Water clear                                 | T1 3/4    | 0.197/5          | 0.34       | 0.98 | 0.08         | 3.8        | 160         | 430           | 15            | 1.95    | 1.85   | 1.50   | 1.15   |
| 134332   | LT18B3-81UR      | 1      | Blue           | Water clear (383UBC)                        | T1 3/4    | 0.197/5          | 0.30       | 0.93 | 0.10         | 3.8        | 350         | 428           | 20            | 1.99    | 1.92   | 1.84   | 1.44   |
| 351038   | MCDL-517GD-F     | 1      | Green          | Green diffused blinking                     | T1 3/4    | 0.197/5          | 0.34       | 1.00 | 0.10         | 2.0        | 15          | 565           | 120           | .51     | .419   | .317   | .238   |
| 351046   | MCDL-517YD-F     | 1      | Yellow         | Yellow diffused blinking                    | T1 3/4    | 0.197/5          | 0.34       | 1.00 | 0.10         | 2.1        | 20          | 585           | 120           | .51     | .419   | .332   | .249   |
| 351054   | MCDL-517AD-F     | 1      | Amber          | Amber diffused blinking                     | T1 3/4    | 0.197/5          | 0.34       | 1.00 | 0.10         | 2.1        | 20          | 585           | 120           | .51     | .419   | .332   | .249   |
| 351011   | MCDL-517ED-F     | 1      | Hi-eff Red     | Red diffused blinking                       | T1 3/4    | 0.197/5          | 0.34       | 1.00 | 0.10         | 1.7        | 20          | 635           | 120           | .51     | .419   | .354   | .265   |
| 351020   | MCDL-517ED-EF    | 1      | Orange         | Orange diffused blinking                    | T1 3/4    | 0.197/5          | 0.34       | 1.00 | 0.10         | 2.1        | 20          | 635           | 120           | .51     | .419   | .354   | .265   |
| 351062   | MCDL-517SRD-F    | 1      | Super Red      | Red diffused blinking                       | T1 3/4    | 0.197/5          | 0.34       | 1.00 | 0.10         | 1.8        | 200         | 660           | 120           | .57     | .469   | .371   | .278   |
| 351071   | MCDL-517LRD-F    | 1      | Super Red      | Red diffused blinking                       | T1 3/4    | 0.197/5          | 0.34       | 1.00 | 0.10         | 1.8        | 300         | 660           | 120           | .57     | .469   | .375   | .281   |
| 351097   | MCDL-517URC-U14F | 1      | Super Red      | Water clear blinking                        | T1 3/4    | 0.197/5          | 0.34       | 1.00 | 0.10         | 1.8        | 300         | 660           | 30            | .57     | .513   | .41    | .308   |
| 34690    | LFH3360          | 1      | Red            | Red diff. blinking (XC5410) <sup>†</sup>    | T1 3/4    | 0.197/5          | 0.30       | 0.94 | 0.07         | 3-12V      | 2.8         | 697           | N/A           | .49     | .45    | .39    | .35    |
| 351003   | MCDL-517HD-F     | 1      | Bright Red     | Red diffused blinking                       | T1 3/4    | 0.197/5          | 0.34       | 1.00 | 0.10         | 2.1        | 5.0         | 700           | 120           | .52     | .49    | .44    | .33    |
| 119634   | LHR3930          | 1      | Red            | Red diffused Jumbo (LT9952L)                | T2 1/2    | 0.315/8          | 0.44       | 0.84 | 0.07         | 2.0        | 100         | 660           | 44            | .23     | .20    | .15    | .113   |
| 138683   | LHR3630          | 1      | Red            | Red diffused XJumbo (XC10R)                 | T3 1/4    | 0.394/10         | 0.40       | 1.04 | 0.10         | 2.0        | 100         | 660           | 32            | .45     | .405   | .32    | .24    |
| 98984    | LVG3630          | 1      | Green          | Green diffused XJumbo (XC10G)               | T3 1/4    | 0.394/10         | 0.40       | 1.07 | 0.08         | 2.3        | 40          | 565           | 32            | .27     | .26    | .19    | .13    |
| 379647   | MCDL-833YD       | 1      | Yellow         | Yellow diffused                             | T3 1/4    | 0.393/10         | 0.47       | 1.00 | 0.10         | 2.1        | 25          | 590           | 60            | .66     | .59    | .475   | .356   |
| 379639   | MCDL-833ED       | 1      | Hi-eff Red     | Red diffused                                | T3 1/4    | 0.393/10         | 0.47       | 1.00 | 0.10         | 2.0        | 25          | 635           | 60            | .66     | .58    | .48    | .358   |
| 379663   | MCDL-833SRD      | 1      | Super Red      | Red diffused                                | T3 1/4    | 0.393/10         | 0.47       | 1.00 | 0.10         | 1.8        | 200         | 660           | 60            | .76     | .68    | .547   | .41    |
| 379604   | MCDL-833GD       | 1      | Green          | Green diffused                              | T3 1/4    | 0.393/10         | 0.47       | 1.00 | 0.10         | 2.2        | 20          | 570           | 60            | .66     | .59    | .475   | .356   |
| 104889   | LEG5292          | 7      | Orange/Green   | White diff. bi-color rectangular            | 2 x 5     | —                | 0.27       | 1.02 | 0.08         | 2.3        | 6/6         | 695/565       | 116           | .23     | .215   | .183   | .137   |
| 333796   | UT7231-81        | 8      | Yellow         | Yellow diffused rectangular                 | 2.3 x 7.1 | —                | 0.29       | 0.94 | 0.10         | 2.1        | 5.0         | 585           | 70            | .29     | .241   | .136   | .102   |
| 333761   | UT7241-81        | 8      | Hi-eff Red     | Orange diffused rectangular                 | 2.3 x 7.1 | —                | 0.29       | 0.94 | 0.10         | 2.1        | 7.2         | 635           | 70            | *       | .097   | .078   | .059   |
| 333770   | UT7241R-81       | 8      | Hi-eff Red     | Red diffused rectangular                    | 2.3 x 7.1 | —                | 0.29       | 0.94 | 0.10         | 2.1        | 7.2         | 635           | 70            | *       | .154   | .131   | .098   |
| 333788   | UT7222-81        | 8      | Green          | White diffused rectangular                  | 2.3 x 7.1 | —                | 0.29       | 0.94 | 0.10         | 2.1        | 6.1         | 567           | 70            | .24     | .209   | .149   | .111   |
| 333702   | UT7321-81        | 9      | Green          | Green diffused rectangular                  | 3.2 x 6.2 | —                | 0.28       | 0.80 | 0.10         | 2.1        | 8.8         | 567           | 60            | .33     | .31    | .25    | .186   |
| 333711   | UT7331-81        | 9      | Yellow         | Yellow diffused rectangular                 | 3.2 x 6.2 | —                | 0.28       | 0.80 | 0.10         | 2.1        | 7.2         | 585           | 60            | .29     | .243   | .184   | .138   |
| 333690   | UT7341R-81       | 9      | Orange         | Red diffused rectangular                    | 3.2 x 6.2 | —                | 0.28       | 0.80 | 0.10         | 2.1        | 10.1        | 635           | 60            | .23     | .207   | .146   | .105   |
| 333745   | UT5221-81        | 8      | Green          | Green diffused rectangular                  | 5.2 x 7.8 | —                | 0.30       | 1.03 | 0.10         | 2.1        | 7.1         | 572           | 82            | *       | .092   | .073   | .055   |
| 333753   | UT5231-81        | 8      | Yellow         | Yellow diffused rectangular                 | 5.2 x 7.8 | —                | 0.30       | 1.03 | 0.10         | 2.1        | 5.9         | 589           | 82            | *       | .106   | .072   | .054   |
| 333737   | UT521R-81        | 8      | Hi-eff Red     | Red diffused rectangular                    | 5.2 x 7.8 | —                | 0.30       | 1.03 | 0.10         | 2.1        | 8.3         | 630           | 82            | *       | .135   | .092   | .069   |
| 334650   | UB3541R-11 NRAK  | 10     | Orange         | 0.35" lightbar                              | 8.9 x 8.9 | 0.35/8.9         | 0.20       | —    | 0.10         | 2.1        | 7.8         | 635           | N/A           | .92     | .80    | .64    | .483   |
| 334668   | UB3531-11 NYAK   | 10     | Yellow         | 0.35" lightbar                              | 8.9 x 8.9 | 0.35/8.9         | 0.20       | —    | 0.10         | 2.1        | 5.5         | 585           | N/A           | .95     | .80    | .64    | .483   |
| 334676   | UB3521-11 NGAK   | 10     | Green          | 0.35" lightbar                              | 8.9 x 8.9 | 0.35/8.9         | 0.20       | —    | 0.10         | 2.1        | 6.8         | 567           | N/A           | .95     | .80    | .64    | .483   |
| 334326   | LG-150Y-DT       | 11     | Yellow         | White diffused                              | SMD1206   | —                | 0.06       | 0.13 | —            | 1.7        | 5           | 585           | 150           | *       | .135   | .092   | .069   |
| 334297   | LG-150Y-CT       | 11     | Yellow         | Water clear                                 | SMD1206   | —                | 0.07       | 0.13 | —            | 1.7        | 6.0         | 588           | 150           | *       | .127   | .09    | .067   |
| 334318   | LG-150E-DT       | 11     | Hi-eff Red     | White diffused                              | SMD1206   | —                | 0.06       | 0.13 | —            | 1.7        | 8           | 635           | 150           | *       | .129   | .092   | .083   |
| 334334   | LG-150G-DT       | 11     | Green          | White diffused                              | SMD1206   | —                | 0.06       | 0.13 | —            | 1.7        | 10          | 573           | 140           | *       | .118   | .094   | .071   |
| 334300   | LG-150G-CT       | 11     | Green          | Water clear                                 | SMD1206   | —                | 0.07       | 0.13 | —            | 1.7        | 12.5        | 573           | 140           | *       | .129   | .092   | .069   |
| 334351   | LY9553/TR1       | 12     | Yellow         | Water clear surface mount                   | PLCC-2    | —                | 0.12       | 0.14 | —            | 1.7        | 7.0         | 585           | 84            | *       | .172   | .138   | .104   |
| 334369   | LG9533/TR1       | 12     | Green          | Water clear surface mount                   | PLCC-2    | —                | 0.12       | 0.14 | —            | 1.7        | 9.0         | 565           | 84            | *       | .131   | .116   | .095   |

# See pg 43 for figures \* 10 pcs. in LEDs & LED Mounting Hardware cabinet kit, pg 49 <sup>1</sup> Reverse polarity to change color <sup>†</sup> Volt. shown is operating volt. range; no current limiting resistor required.

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## Medium-Output LEDs

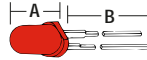



















Fig. 1



Fig. 2

\* Minimum order 10 pieces

| Part No. | Cross Ref. No.   | Fig. | Emitting Color   | Lens/Feature Description | LED Size | Diameter inch/mm | Dimensions |      | Lead Spacing | Typical Vf | Typical mcd | Wavelength nm | Viewing Angle | Pricing |        |         |        |
|----------|--|------|------------------|--------------------------|----------|------------------|------------|------|--------------|------------|-------------|---------------|---------------|---------|--------|---------|--------|
|          |  |      |                  |                          |          |                  | A"         | B"   |              |            |             |               |               | 1       | 10     | 100     | 1000   |
| 333374   | LURF2643-1          | 1    | Red              | Water clear              | T1       | 0.119/3          | 0.13       | 0.98 | 0.10         | 1.5        | 550         | 630           | 40            | \$ .20  | \$ .18 | \$ .173 | \$ .13 |
| 333340   | LHE2643             | 1    | Orange           | Water clear              | T1       | 0.119/3          | 0.13       | 0.98 | 0.10         | 1.7        | 700         | 620           | 40            | .25     | .225   | .18     | .135   |
| 333358   | LUE2643             | 1    | Orange           | Water clear              | T1       | 0.119/3          | 0.13       | 0.98 | 0.10         | 1.7        | 900         | 620           | 40            | .24     | .23    | .21     | .158   |
| 334749   | UT63B3-41-UR33      | 1    | Blue             | Water clear              | T1       | 0.119/3          | 0.17       | 0.94 | 0.10         | 3.2        | 900         | 470           | 45            | 1.26    | 1.21   | .92     | .66    |
| 334764   | CMD204UWC-JV        | 1    | White            | Water clear              | T1       | 0.119/3          | 0.20       | 1.00 | 0.10         | 3.7        | 900         | 475           | 30            | 2.35    | 2.29   | 1.71    | 1.54   |
| 206501   | LVY3331             | 1    | Yellow           | Yellow transparent       | T1 3/4   | 0.197/5          | 0.24       | 1.07 | 0.07         | 2.2        | 700         | 595           | 20            | .21     | .19    | .15     | .12    |
| 206519   | LHR3331             | 1    | Red              | Red transparent          | T1 3/4   | 0.197/5          | 0.24       | 1.07 | 0.07         | 2.0        | 660         | 550           | 20            | .21     | .19    | .15     | .12    |
| 334490   | LHRF3333/S46/A      | 1    | Red              | Water clear              | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.5        | 700         | 630           | 30            | *       | .142   | .108    | .081   |
| 333420   | LSR3331             | 1    | Red              | Red transparent          | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.5        | 550         | 660           | 20            | *       | .135   | .092    | .069   |
| 152864   | BVU-501RD4          | 1    | Red Super Bright | Water clear              | T1 3/4   | 0.197/5          | 0.34       | 0.89 | 0.10         | 1.9        | 600         | 660           | 20            | .29     | .24    | .19     | .15    |
| 333497   | LSR13233            | 1    | Red              | Water clear              | T1 3/4   | 0.197/5          | 0.35       | 0.98 | 0.10         | 1.5        | 720         | 660           | 18            | .20     | .18    | .144    | .108   |
| 333631   | LUE13733            | 1    | Orange           | Water clear              | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.7        | 700         | 620           | 25            | .24     | .216   | .194    | .175   |
| 153154   | LVG3333             | 1    | Green            | Water clear (HLMP-8509)  | T1 3/4   | 0.197/5          | 0.36       | 0.90 | 0.10         | 2.3        | 500         | 565           | 20            | *       | .079   | .063    | .047   |
| 333551   | LVG13233            | 1    | Green            | Water clear              | T1 3/4   | 0.197/5          | 0.35       | 0.98 | 0.10         | 1.7        | 600         | 565           | 18            | .20     | .186   | .15     | .138   |
| 333542   | LVG3833             | 1    | Green            | Water clear              | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.7        | 550         | 565           | 12            | *       | .16    | .149    | .138   |
| 334465   | LDBK3331/H0         | 1    | Blue             | Blue transparent         | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 3.5        | 900         | 470           | 26            | 1.79    | 1.46   | 1.29    | 1.07   |
| 334756   | UT5KW3-AA-UAE3-TO1  | 2    | White            | Water clear              | SMD1206  | —                | 0.08       | 0.14 | —            | 3.2        | 550         | —             | 120           | 2.09    | 1.97   | 1.79    | 1.34   |

Optos

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## High-Output LEDs

• Typical DC forward current 20mA

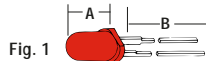


Fig. 1





























Fig. 2



Fig. 3

**Lower \$\$\$**

| Part No. | Cross Ref. No.   | Fig. | Emitting Color   | Lens/Feature Description | LED Size | Diameter inch/mm | Dimensions |      | Lead Spacing | Typical Vf | Typical mcd | Wavelength nm | Viewing Angle | Pricing |        |        |        |
|----------|--|------|------------------|--------------------------|----------|------------------|------------|------|--------------|------------|-------------|---------------|---------------|---------|--------|--------|--------|
|          |  |      |                  |                          |          |                  | A"         | B"   |              |            |             |               |               | 1       | 10     | 100    | 1000   |
| 217525   | MCDPW-3004C           | 1    | White            | Water clear              | T1       | 0.119/3          | 0.18       | 1.00 | 0.10         | 3.8        | 3000        | —             | 30            | \$2.99  | \$2.85 | \$2.69 | \$2.55 |
| 333577   | LUYS3333              | 1    | Yellow           | Water Clear              | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.7        | 2700        | 587           | 20            | .26     | .211   | .191   | .154   |
| 197675   | BVT-5E1TT4E           | 1    | Yellow           | Water clear              | T1 3/4   | 0.197/5          | 0.30       | 1.08 | 0.08         | 2.3        | 2800        | 592           | 15            | .31     | .29    | .275   | .262   |
| 333614   | LUY3833H             | 1    | Yellow           | Water clear              | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.7        | 5000        | 590           | 12            | .31     | .261   | .239   | .215   |
| 333569   | LUY3333/A           | 1    | Yellow           | Water clear              | T1 3/4   | 0.197/5          | 0.35       | 1.00 | 0.10         | 1.7        | 1500        | 595           | 20            | .29     | .267   | .202   | .129   |
| 333593   | LHY3833             | 1    | Yellow           | Water clear              | T1 3/4   | 0.197/5          | 0.35       | 1.00 | 0.10         | 1.7        | 1500        | 595           | 20            | .29     | .261   | .222   | .167   |
| 333606   | MV8315-JV           | 1    | Yellow           | Water clear              | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.7        | 2700        | 595           | 12            | .30     | .264   | .211   | .158   |
| 197617   | BVU-5E1QH4E         | 1    | Red              | Water clear              | T1 3/4   | 0.197/5          | 0.30       | 1.05 | 0.08         | 1.8        | 2180        | 630           | 15            | .39     | .35    | .29    | .25    |
| 334423   | UT9C13-86-UDC2      | 1    | Red              | Water clear              | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.9        | 2700        | 630           | 18            | .23     | .21    | .173   | .12    |
| 334481   | UT1813-86-UC9T-P27  | 1    | Ultra Red        | Water clear              | T1 3/4   | 0.197/5          | 0.34       | 0.94 | 0.10         | 2.2        | 3500        | 642           | 15            | .30     | .266   | .239   | .229   |
| 152864   | BVU-501RD4          | 1    | Red Super Bright | Water clear              | T1 3/4   | 0.197/5          | 0.34       | 0.89 | 0.10         | 1.9        | 1000        | 660           | 20            | .29     | .24    | .19    | .15    |
| 333438   | UT1873-81-UR        | 1    | Red              | Water clear              | T1 3/4   | 0.197/5          | 0.34       | 0.94 | 0.10         | 1.9        | 1000        | 660           | 10            | .22     | .21    | .19    | .142   |
| 333447   | UT1873-81-UR-P22    | 1    | Red              | Water clear              | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.9        | 1200        | 660           | 25            | .21     | .19    | .125   | .105   |
| 333518   | LUR13233            | 1    | Red              | Water clear              | T1 3/4   | 0.197/5          | 0.35       | 0.98 | 0.10         | 1.5        | 2400        | 660           | 18            | .21     | .19    | .153   | .115   |
| 333526   | LUR3833             | 1    | Red              | Water clear              | T1 3/4   | 0.197/5          | 0.35       | 0.98 | 0.10         | 1.5        | 2700        | 660           | 12            | .22     | .17    | .123   | .113   |
| 333500   | LHR3833/A           | 1    | Red              | Water clear              | T1 3/4   | 0.197/5          | 0.35       | 0.98 | 0.10         | 1.5        | 1500        | 660           | 12            | .25     | .214   | .136   | .102   |
| 333665   | LEF3833             | 1    | Orange           | Water clear              | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.7        | 1700        | 620           | 12            | .25     | .205   | .175   | .172   |
| 333649   | LHE3333             | 1    | Orange           | Water clear              | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.7        | 1800        | 620           | 20            | .30     | .232   | .177   | .132   |
| 333657   | LUE3333             | 1    | Orange           | Water clear              | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.7        | 3400        | 620           | 20            | \$2.29  | .26    | .234   | .187   |
| 333673   | LUE3833             | 1    | Orange           | Water clear              | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 1.7        | 5000        | 620           | 12            | .33     | .266   | .202   | .159   |
| 131895   | TLSH180P            | 1    | Orange           | Water clear              | T1 3/4   | 0.197/5          | 0.39       | 0.80 | 0.10         | 2.1        | 10000       | 623           | 8             | 2.49    | 2.19   | 1.95   | 1.79   |
| 197683   | BVT-5E1QT4ER        | 1    | Orange Red       | Water clear              | T1 3/4   | 0.197/5          | 0.29       | 1.08 | 0.08         | 2.3        | 4650        | 634           | 15            | .69     | .59    | .49    | .39    |
| 334473   | LDGL3333/H0         | 1    | Green            | Water clear              | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 3.5        | 3400        | 502           | 22            | 1.79    | 1.45   | 1.29   | 1.05   |
| 183214   | MCDPG-503PC1        | 1    | Green            | Water clear              | T1 3/4   | 0.197/5          | 0.30       | 1.04 | 0.08         | 3.5        | 2200        | 515           | 10-15         | 2.95    | 2.65   | 2.39   | 2.15   |
| 183222   | MCDL-513SBC4        | 1    | Blue             | Water clear              | T1 3/4   | 0.197/5          | 0.29       | 1.02 | 0.08         | 3.6        | 3000        | 470           | 25            | 3.25    | 2.95   | 2.65   | 2.39   |
| 334502   | LWK3333             | 1    | White            | Water clear              | T1 3/4   | 0.197/5          | 0.34       | 0.98 | 0.10         | 3.5        | 5000        | —             | 16            | 1.99    | 1.65   | 1.35   | 1.05   |
| 334773   | UT18W3-86-UAF1-P22  | 1    | White            | Water clear              | T1 3/4   | 0.197/5          | 0.34       | 1.00 | 0.10         | 3.6        | 2900        | 475           | 25            | \$2.35  | 1.95   | 1.75   | 1.58   |
| 183231   | BVU-5C14WK4-B       | 1    | White            | Water clear              | T1 3/4   | 0.197/5          | 0.30       | 1.06 | 0.08         | 3.5        | 3000        | —             | 10            | \$2.55  | 2.29   | 2.04   | 1.84   |
| 142894   | BVU-5E1WK4-B        | 1    | White            | Water clear              | T1 3/4   | 0.197/5          | 0.34       | 0.79 | 0.08         | 3.5        | 3700        | —             | 15            | 3.75    | 3.41   | 2.90   | 2.49   |
| 320531   | MCDL-5013UWC        | 1    | White            | Water clear              | T1 3/4   | 0.197/5          | 0.30       | 1.00 | 0.10         | 3.8        | 5000        | —             | 15            | 1.39    | 1.09   | .80    | .72    |
| 197641   | BVT-529TT3E         | 2    | Yellow           | Yellow transparent       | Oval     | 0.170"/.220"     | 0.29       | 1.04 | 0.08         | 2.3        | 7800        | 592           | 70            | .76     | .68    | .61    | .54    |
| 404582   | MCDL-1860UWC-15C   | 3    | Ultra White      | Water clear (7.62mm sq.) | 3mm Dome | 0.119/3          | 0.30       | 0.30 | 0.20         | 3.5        | 3500        | —             | 75            | 2.25    | 2.03   | 1.82   | 1.35   |
| 664341   | MCDL-1870UWC-15C    | 3    | White            | Water clear (7.62mm sq.) | 3mm Dome | 0.119/3          | 0.30       | 0.30 | 0.20         | 3.5        | 6500        | —             | 40            | 2.25    | 2.03   | 1.82   | 1.35   |
| 664405   | MCDL-1860UEC-TL     | 3    | Hi-Eff Red       | Water clear (7.62mm sq.) | 3mm Dome | 0.119/3          | 0.30       | 0.30 | 0.20         | 2.0        | 3200        | 625           | 75            | 1.39    | 1.26   | 1.13   | .85    |
| 664413   | MCDL-1870UEC-TL     | 3    | Hi-Eff Red       | Water clear (7.62mm sq.) | 3mm Dome | 0.119/3          | 0.30       | 0.30 | 0.20         | 2.0        | 4200        | 625           | 40            | 1.39    | 1.26   | 1.13   | .85    |
| 664384   | MCDL-1860UUC-TL     | 3    | Amber            | Water clear (7.62mm sq.) | 3mm Dome | 0.119/3          | 0.30       | 0.30 | 0.20         | 2.0        | 3200        | 590           | 75            | 1.39    | 1.26   | 1.13   | .85    |
| 664392   | MCDL-1870UUC-TL     | 3    | Amber            | Water clear (7.62mm sq.) | 3mm Dome | 0.119/3          | 0.30       | 0.30 | 0.20         | 2.0        | 4200        | 590           | 40            | 1.39    | 1.26   | 1.13   | .85    |
| 404603   | MCDL-1860UGC-TL     | 3    | Green            | Water clear (7.62mm sq.) | 3mm Dome | 0.119/3          | 0.30       | 0.30 | 0.20         | 3.5        | 3500        | 525           | 75            | 2.15    | 1.94   | 1.74   | 1.25   |
| 664376   | MCDL-1870UGC-TL     | 3    | Green            | Water clear (7.62mm sq.) | 3mm Dome | 0.119/3          | 0.30       | 0.30 | 0.20         | 3.5        | 7500        | 525           | 30            | 2.15    | 1.94   | 1.74   | 1.25   |
| 664368   | MCDL-1870UBC-15C    | 3    | Blue             | Water clear (7.62mm sq.) | 3mm Dome | 0.119/3          | 0.30       | 0.30 | 0.20         | 3.5        | 2500        | 470           | 40            | 2.15    | 1.94   | 1.74   | 1.25   |
| 404591   | MCDL-1860UBC-15C    | 3    | Blue             | Water clear (7.62mm sq.) | 3mm Dome | 0.119/3          | 0.30       | 0.30 | 0.20         | 3.5        | 2500        | 470           | 75            | 2.15    | 1.94   | 1.74   | 1.25   |

## LEDTECH Medium-Output LEDs

• Typical DC forward current 20mA

Ledtech is a QS9000 and ISO-9000 Certified Company

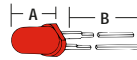


Fig. 1

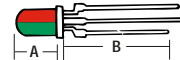


Fig. 2



152805

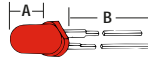
151415

\* Minimum order 10 pieces

| Part Number              | Product Number   | Fig. | Emitting Color   | Lens/Feature Description       | LED Size                 | Diameter (in./mm) | Dimensions |      | Lead Spacing | Typical Vf @ If (mA) | Typical mcd @ mA | Wavelength nm | Viewing Angle | Pricing |        |        |        |
|--------------------------|------------------|------|------------------|--------------------------------|--------------------------|-------------------|------------|------|--------------|----------------------|------------------|---------------|---------------|---------|--------|--------|--------|
|                          |                  |      |                  |                                |                          |                   | A"         | B"   |              |                      |                  |               |               | 1       | 10     | 100    | 1000   |
| 156954                   | LT0373-41 R      | 1    | Red Super Bright | Water clear                    | T1                       | 0.119/3           | 0.21       | 1.07 | 0.08         | 1.7 @ 20             | 600 @ 20         | 660           | 46            | \$.24   | \$.22  | \$.17  | \$.14  |
| 156946                   | LT0362-25-D61 R  | 2    | Red/Green        | White diff. bi-color tri-state | T1                       | 0.119/3           | 0.16       | 0.87 | 0.08         | 2.1 @ 20             | 2.7/13.3 @ 20    | 700/567       | 50            | .29     | .25    | .19    | .15    |
| 152751                   | LT0344R-41 R     | 1    | Orange Red       | Red clear                      | T1                       | 0.119/3           | 0.20       | 0.89 | 0.10         | 2.1 @ 20             | 52.9 @ 10        | 635           | 36            | .21     | .19    | .16    | .12    |
| 152784                   | LT0341R-41 R     | 1    | Orange Red       | Red diffused                   | T1                       | 0.119/3           | 0.20       | 0.89 | 0.10         | 2.1 @ 20             | 15.5 @ 10        | 635           | 56            | *       | .17    | .15    | .12    |
| 152768                   | LT0324-41 R      | 1    | Green            | Green clear                    | T1                       | 0.119/3           | 0.20       | 0.89 | 0.10         | 2.1 @ 20             | 45 @ 20          | 567           | 36            | *       | .077   | .059   | .057   |
| 156929                   | LT0321-41-HE R   | 1    | Green            | Green diffused                 | T1                       | 0.118/3           | 0.16       | 0.88 | 0.10         | 2.1 @ 20             | 32 @ 20          | 567           | 56            | .20     | .18    | .11    | .10    |
| 215597                   | LT2K33-81-UC9T R | 1    | Yellow           | Water clear                    | T1 3/4                   | 0.197/5           | 0.31       | 0.89 | 0.10         | 2.2 @ 20             | 5000 @ 20        | 592           | 5             | .49     | .441   | .353   | .265   |
| 242844                   | LT1811-81 R      | 1    | Red              | Red diffused                   | T1 3/4                   | 0.197/5           | 0.30       | 0.88 | 0.10         | 2.1 @ 20             | 4.1 @ 20         | 700           | 44            | *       | .12    | .10    | .06    |
| 152805                   | LT1873-81-UR R   | 1    | Red Ultra Bright | Water clear                    | T1 3/4                   | 0.197/5           | 0.34       | 0.89 | 0.10         | 1.9 @ 20             | 2000 @ 20        | 660           | 12            | *       | .168   | .134   | .10    |
| 152856                   | LT1841R-81 R     | 1    | Orange Red       | Red diffused                   | T1 3/4                   | 0.197/5           | 0.34       | 0.89 | 0.10         | 2.1 @ 20             | 23 @ 20          | 635           | 44            | *       | .097   | .078   | .059   |
| 156962                   | LT1823-81-HE R   | 1    | Green            | Water clear                    | T1 3/4                   | 0.197/5           | 0.34       | 0.87 | 0.10         | 2.1 @ 20             | 500 @ 20         | 567           | 19            | *       | .17    | .15    | .12    |
| 152821                   | LT1821-81-HE R   | 1    | Green            | Green diffused                 | T1 3/4                   | 0.197/5           | 0.34       | 0.89 | 0.10         | 2.1 @ 20             | 96 @ 20          | 567           | 41            | *       | .16    | .12    | .09    |
| 152830                   | LT1831-81-UR R   | 1    | Ylw Ultra Bright | Yellow diffused                | T1 3/4                   | 0.197/5           | 0.34       | 0.89 | 0.10         | 2.0 @ 20             | 424 @ 20         | 593           | 41            | .22     | .198   | .178   | .15    |
| White Diffused Backlight |                  |      |                  |                                |                          |                   |            |      |              |                      |                  |               |               |         |        |        |        |
| 151415                   | LT1F24-A2-S1 R   | —    | Green            | Backlight, diffused            | 2.05"L x 0.78"H x 0.09"T |                   |            |      | 8-pin        | 4.2 @ 20             | 140 @ 20         | 567           | —             | \$2.95  | \$2.66 | \$2.12 | \$1.59 |

\* Blue Part No. = Limited Quantity Available

## HLMP Series LEDs



\* Minimum order 10 pieces

| Part No. | Product No. | Emitting Color | Lens/Feature Description | LED Size | Diameter inch/mm | Dimensions |      | Lead Spacing | Typical Vf @ If (mA) | Typical mcd @ mA | Wavelength nm | Viewing Angle | Pricing |        |        |        |
|----------|-------------|----------------|--------------------------|----------|------------------|------------|------|--------------|----------------------|------------------|---------------|---------------|---------|--------|--------|--------|
|          |             |                |                          |          |                  | A"         | B"   |              |                      |                  |               |               | 1       | 10     | 100    | 1000   |
| 253278   | HLMP-1301   | Red            | Diffused                 | T1       | 0.119/3          | 0.19       | 1.00 | 0.10         | 1.9 @ 10             | 5.4 @ 10         | 635           | 60            | *       | \$.119 | \$.103 | \$.077 |
| 253665   | HLMP-1540   | Green          | Clear                    | T1       | 0.119/3          | 0.19       | 1.00 | 0.10         | 45 @ 20              | 2.2 @ 20         | 565           | 45            | *       | .158   | .137   | .101   |
| 253681   | HLMP-1790   | Green          | Diffused                 | T1       | 0.119/3          | 0.19       | 1.00 | 0.10         | 2.2 @ 2              | 2.3 @ 2          | 565           | 50            | .21     | .145   | .116   | .087   |
| 253753   | HLMP-3301   | Red            | Diffused                 | T1 3/4   | 0.197/5          | 0.36       | 1.00 | 0.10         | 2.4 @ 10             | 5.4 @ 10         | 635           | 60            | *       | .15    | .104   | .093   |
| 253817   | HLMP-4700   | Red            | Diffused                 | T1 3/4   | 0.197/5          | 0.36       | 1.00 | 0.10         | 1.7 @ 2              | 2.3 @ 2          | 626           | 50            | .23     | .199   | .174   | .157   |
| 11797    | QLMP-D141*  | Red            | Water clear              | T1 3/4   | 0.197/5          | 0.29       | 1.05 | 0.07         | 2.0 @ 20             | 350 @ 20         | 660           | —             | *       | .158   | .112   | .073   |
| 253833   | HLMP-4740   | Green          | Diffused                 | T1 3/4   | 0.197/5          | 0.36       | 1.00 | 0.10         | 2.2 @ 2              | 2.3 @ 2          | 565           | 50            | .23     | .203   | .177   | .159   |

\* 10 pcs. in LEDs & LED Mounting Hardware cabinet kit, pg 49

## LED Cabinet Kit and LED Mounting Hardware

### Design Engineer's 139 Piece LED Hardware Assortment

Allows you to mount LEDs for different applications and designs. Eliminates soldering, shrink tubing and terminal crimping.

- 139 piece hardware kit for T1 and T1 3/4 LEDs
- Clear plastic case with dividers
- Size: 8.5"L x 4.5"W x 1.5"H • Weight: 0.4 lbs.



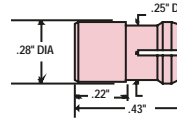
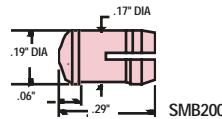
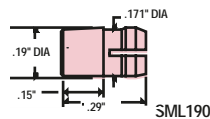
|  |  |
|--|--|
| Includes:<br>LED panel lenses and mounts | • Colors: clear, red, yellow, green and blue<br>• Shapes: round, square<br>• Retainers   |
| Pre-wired solderless LED interconnection | • Varied lengths<br>• Standard header pin connector termination<br>• Crimp-type removable connector pins   |
| LED PCB mounts, sockets and standoffs    | • Vertical and horizontal mount<br>• Various height LED standoffs<br>• SMT-type connectors<br>• Through-hole type connectors<br>• Resistor-type connectors |

| Part No. | Description                   | Price   |
|----------|-------------------------------|---------|
| 418731   | Engineer's LED hardware kit R | \$25.09 |

Our knowledgeable Tech Support department is ready to answer your questions. Just call us! 1-800-831-4242

### T1 & T1 3/4 Cliplite® LED Lens Mounts

Standard and low profile, provide 180° viewing angle. Colors: red, green, amber, yellow and clear. Hole size for T1, 0.171" on 0.250" centers. Panel thickness T1: SML190, 0.031-0.062"; SMB200, 0.062-0.125". Hole size for T1 & T1-3/4, 0.250" on 0.375" centers. Panel thickness, CLF280, 0.062-0.125". CLB300, 0.031-0.0250".



| Part No. | Type        | Size   | Color  | 1     | 10     | 100    | 1000  |
|----------|-------------|--------|--------|-------|--------|--------|-------|
| 417818   | SML190RTP R | T1     | Red    | \$.26 | \$.226 | \$.166 | \$.14 |
| 417826   | SML190ATP R | T1     | Amber  | .26   | .226   | .166   | .14   |
| 417834   | SML190GTP R | T1     | Green  | .26   | .226   | .166   | .14   |
| 417842   | SML190YTP R | T1     | Yellow | .26   | .226   | .162   | .14   |
| 417851   | SML190CTP R | T1     | Clear  | .26   | .226   | .166   | .14   |
| 417869   | SMB200RTP R | T1     | Red    | .26   | .226   | .166   | .14   |
| 417877   | SMB200ATP R | T1     | Amber  | .26   | .226   | .167   | .14   |
| 417885   | SMB200GTP R | T1     | Green  | .26   | .226   | .167   | .14   |
| 417893   | SMB200YTP R | T1     | Yellow | .26   | .226   | .166   | .14   |
| 417906   | SMB200CTP R | T1     | Clear  | .26   | .226   | .167   | .14   |
| 29612    | CLF280RTP R | T1 3/4 | Red    | .28   | .247   | .219   | .188  |
| 417914   | CLF280ATP R | T1 3/4 | Amber  | .28   | .244   | .185   | .157  |
| 417922   | CLF280GTP R | T1 3/4 | Green  | .28   | .244   | .185   | .157  |
| 417931   | CLF280YTP R | T1 3/4 | Yellow | .28   | .244   | .181   | .157  |
| 14277    | CLF280CTP R | T1 3/4 | Clear  | .28   | .237   | .216   | .157  |
| 417949   | CLB300RTP R | T1 3/4 | Red    | .28   | .244   | .185   | .157  |
| 417957   | CLB300ATP R | T1 3/4 | Amber  | .28   | .244   | .185   | .157  |
| 417965   | CLB300GTP R | T1 3/4 | Green  | .28   | .244   | .185   | .157  |
| 417973   | CLB300YTP R | T1 3/4 | Yellow | .28   | .244   | .181   | .157  |
| 124927   | CLB300CTP R | T1 3/4 | Clear  | .25   | .19    | .16    | .14   |

R RoHS compliant product • This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

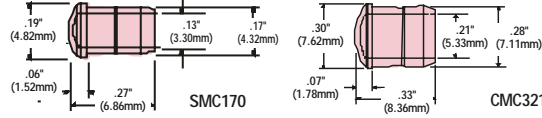


## T1 & T1<sup>3/4</sup> Cliplite® Panel Lens for PCB Mounted LEDs Quantity SAVE

T1 and T1-3/4 size low-profile panel lenses provide 180° viewing angle. Type SMC170 for T1 LEDs. Hole size: 0.171" on 0.250" centers. CMC321 for T1-3/4 LEDs. Hole size: 0.283" on 0.375" centers. Use retaining ring RNG165 for SMC170 and RNG268 for CMC321/CMC322. RNG268: 0.36" Dia., 0.08" L.

- RNG165: 0.24" Dia., 0.50" L
- RNG132: 0.24" Dia., 0.08" L
- CMC285: 0.21" Dia., 0.285" L
- SMC130: 0.14" Dia., 0.24" L

\* Prepackaged: please order in increments of 10



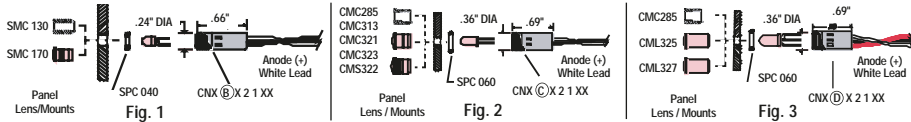
| Part No. | Type      | Size   | Color            | 1     | 10     | 100    | 1000  |
|----------|-----------|--------|------------------|-------|--------|--------|-------|
| 417691   | SMC170RTP | T1     | Red              | \$.26 | \$.226 | \$.166 | \$.14 |
| 417703   | SMC170ATP | T1     | Amber            | .26   | .226   | .166   | .14   |
| 417711   | SMC170GTP | T1     | Green            | .26   | .226   | .166   | .14   |
| 417720   | SMC170YTP | T1     | Yellow           | .26   | .226   | .166   | .14   |
| 143183   | SMC170CTP | T1     | Clear            | .26   | .226   | .166   | .14   |
| 417738   | CMC321RTP | T1 3/4 | Red              | .28   | .244   | .185   | .157  |
| 417746   | CMC321ATP | T1 3/4 | Amber            | .28   | .244   | .185   | .157  |
| 417754   | CMC321GTP | T1 3/4 | Green            | .28   | .244   | .185   | .157  |
| 417762   | CMC321YTP | T1 3/4 | Yellow           | .28   | .244   | .185   | .157  |
| 417771   | CML325CTP | T1 3/4 | Clear            | .28   | .254   | .195   | .164  |
| 143132   | CMC321CTP | T1 3/4 | Clear            | .25   | .22    | .18    | .14   |
| 417797   | SMC130CTP | T1     | Panel mount clip | *     | .169   | .127   | .107  |
| 417800   | CMC285CTP | T1 3/4 | Panel mount clip | .27   | .235   | .166   | .14   |
| 417631   | RNG132    | —      | Ring for SMC130  | .83   | .75    | .059   | .049  |
| 417789   | RNG165    | —      | Ring for SMC285  | *     | .075   | .059   | .049  |
| 417640   | RNG234    | —      | Ring for CMC321  | *     | .074   | .067   | .049  |

Blue Part No. = Limited Quantity Available



## Conxrite Pre-Wired Solderless LED Interconnects

Designed to replace labor-intensive hard-wiring of panel-mounted LEDs to PCB. 3mm type CNXBE and CNXBX connector assemblies use SMC170 lens or SMC130 mount; 5mm type CNXCE and CNXCX assemblies use a CMC321 lens or CMC285 mount. Thin panels (0.032") use ring spacer type SPC040 for 3mm and type SPC060 for 5mm assemblies. CNXBE, CNXCE and CNXDF cables are supplied with panel and header connector. The BX, CX and DX cables are supplied with panel connector and bare wire leads. CNXV and H series locking headers provide positive locking between PCB and cable assembly.



| Part No. | Type      | Fig. | LED Type              | Termination          | Length | 1      | 10     | 100    | 1000   |
|----------|-----------|------|-----------------------|----------------------|--------|--------|--------|--------|--------|
| 417375   | CNXBE2104 | 1    | T1 (3mm) Bi-lead      | 2 position connector | 4"     | \$1.99 | \$1.69 | \$1.11 | \$1.00 |
| 143088   | CNXBE2108 | 1    | T1 (3mm) Bi-lead      | 2 position connector | 8"     | 1.25   | 1.13   | 1.05   | .99    |
| 417383   | CNXBE2112 | 1    | T1 (3mm) Bi-lead      | 2 position connector | 12"    | 1.95   | 1.76   | 1.40   | 1.05   |
| 417391   | CNXBE2124 | 1    | T1 (3mm) Bi-lead      | 2 position connector | 24"    | 2.45   | 2.21   | 1.76   | 1.32   |
| 417404   | CNXBX2104 | 1    | T1 (3mm) Bi-lead      | Stripped leads       | 4"     | 1.21   | 1.09   | .87    | .65    |
| 417412   | CNXBX2108 | 1    | T1 (3mm) Bi-lead      | Stripped leads       | 8"     | 1.18   | 1.06   | .85    | .64    |
| 417421   | CNXBX2112 | 1    | T1 (3mm) Bi-lead      | Stripped leads       | 12"    | 1.36   | 1.23   | .98    | .74    |
| 417439   | CNXBX2118 | 1    | T1 (3mm) Bi-lead      | Stripped leads       | 18"    | 1.55   | 1.35   | 1.08   | .81    |
| 417447   | CNXBX2124 | 1    | T1 (3mm) Bi-lead      | Stripped leads       | 24"    | 1.79   | 1.52   | 1.00   | .90    |
| 143037   | CNXCE2108 | 2    | T1 3/4 (5mm) Bi-lead  | 2 position connector | 8"     | 1.29   | 1.25   | 1.19   | 1.15   |
| 417463   | CNXCE2112 | 2    | T1 3/4 (5mm) Bi-lead  | 2 position connector | 12"    | 1.95   | 1.76   | 1.40   | 1.05   |
| 143053   | CNXCE2118 | 2    | T1 3/4 (5mm) Bi-lead  | 2 position connector | 18"    | 1.55   | 1.39   | 1.20   | 1.09   |
| 417471   | CNXCE2124 | 2    | T1 3/4 (5mm) Bi-lead  | 2 position connector | 24"    | 2.45   | 2.07   | 1.37   | 1.23   |
| 417480   | CNXCX2104 | 2    | T1 3/4 (5mm) Bi-lead  | Stripped leads       | 4"     | 1.35   | 1.14   | .75    | .67    |
| 417498   | CNXCX2108 | 2    | T1 3/4 (5mm) Bi-lead  | Stripped leads       | 8"     | 1.35   | 1.14   | .75    | .67    |
| 417501   | CNXCX2112 | 2    | T1 3/4 (5mm) Bi-lead  | Stripped leads       | 12"    | 1.36   | 1.23   | .98    | .74    |
| 417519   | CNXCX2118 | 2    | T1 3/4 (5mm) Bi-lead  | Stripped leads       | 18"    | 1.55   | 1.35   | 1.08   | .81    |
| 417527   | CNXCX2124 | 2    | T1 3/4 (5mm) Bi-lead  | Stripped leads       | 24"    | 1.79   | 1.61   | 1.01   | .90    |
| 417535   | CNXDF2604 | 3    | T1 3/4 (5mm) Tri-lead | 3 position connector | 4"     | 2.45   | 2.21   | 1.76   | 1.32   |
| 417543   | CNXDF2608 | 3    | T1 3/4 (5mm) Tri-lead | 3 position connector | 8"     | 2.45   | 2.21   | 1.76   | 1.32   |
| 417551   | CNXDF2612 | 3    | T1 3/4 (5mm) Tri-lead | 3 position connector | 12"    | 1.52   | 1.35   | 1.08   | .81    |
| 417560   | CNXDF2618 | 3    | T1 3/4 (5mm) Tri-lead | 3 position connector | 18"    | 2.35   | 2.12   | 1.69   | 1.27   |
| 417578   | CNXDF2624 | 3    | T1 3/4 (5mm) Tri-lead | 3 position connector | 24"    | 2.25   | 2.03   | 1.82   | 1.37   |
| 417586   | CNXDX2604 | 3    | T1 3/4 (5mm) Tri-lead | Stripped leads       | 4"     | 1.85   | 1.67   | 1.33   | .99    |
| 417594   | CNXDX2608 | 3    | T1 3/4 (5mm) Tri-lead | Stripped leads       | 8"     | 1.85   | 1.67   | 1.33   | .99    |
| 417607   | CNXDX2612 | 3    | T1 3/4 (5mm) Tri-lead | Stripped leads       | 12"    | 2.15   | 1.94   | 1.55   | 1.16   |
| 417615   | CNXDX2618 | 3    | T1 3/4 (5mm) Tri-lead | Stripped leads       | 18"    | 2.39   | 2.15   | 1.72   | 1.29   |
| 417623   | CNXDX2624 | 3    | T1 3/4 (5mm) Tri-lead | Stripped leads       | 24"    | 2.59   | 2.33   | 1.87   | 1.40   |

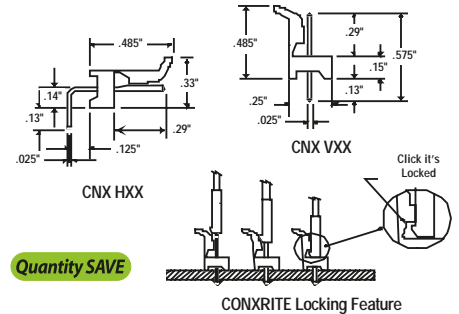
RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

## Conxrite Locking Headers for Use with Cable Assemblies



CNXV and H series locking headers provide positive locking between PCB and cable assembly.

- Mounting P/N 417658: vertical 2-pin
- Mounting P/N 417666: vertical 3-pin
- Mounting P/N 417674: horizontal 2-pin
- Mounting P/N 417682: horizontal 3-pin



Quantity SAVE

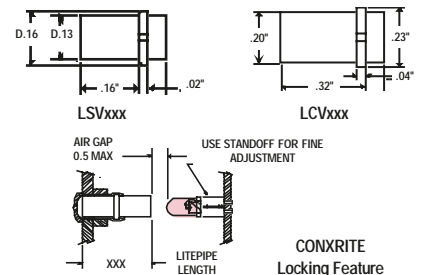
| Part No. | Type      | 1     | 10     | 100    | 1000   |
|----------|-----------|-------|--------|--------|--------|
| 417658   | CNXV02NTP | \$.27 | \$.243 | \$.194 | \$.146 |
| 417666   | CNXV03NTP | .42   | .378   | .302   | .227   |
| 417674   | CNXH02NTP | .34   | .306   | .245   | .184   |
| 417682   | CNXH03NTP | .33   | .297   | .263   | .197   |

## Litepipes for PCB-Mounted LEDs



Designed to transmit light from PCB mounted LED to panel display. Cliplite lenses provide the mounting for Litepipes and produce 180° of viewing angle. Use SMB200 for LSV (3mm) litepipe and CLB300 for LCV (5mm) litepipe, see pg 46. For added security use retaining rings RNG190 (3mm) and RNG268 (5mm).

- Mounting color: clear



| Part No. | Type      | 1     | 10     | 100    | 1000   |
|----------|-----------|-------|--------|--------|--------|
| 417981   | LSV020CTP | \$.28 | \$.254 | \$.224 | \$.189 |
| 417990   | LSV040CTP | .28   | .254   | .224   | .189   |
| 418001   | LSV060CTP | .28   | .254   | .224   | .189   |
| 418010   | LSV080CTP | .28   | .254   | .224   | .189   |
| 418028   | LSV100CTP | .28   | .254   | .224   | .189   |
| 418036   | LSV120CTP | .28   | .254   | .224   | .189   |
| 418044   | LCV036CTP | .28   | .254   | .224   | .189   |
| 418052   | LCV056CTP | .28   | .254   | .224   | .189   |
| 418061   | LCV076CTP | .28   | .254   | .224   | .189   |
| 418079   | LCV096CTP | .28   | .254   | .224   | .189   |
| 418087   | LCV116CTP | .28   | .254   | .224   | .189   |
| 418095   | LCV136CTP | .28   | .254   | .224   | .189   |

## Committed to You

We're committed to providing you with the best service in the industry.

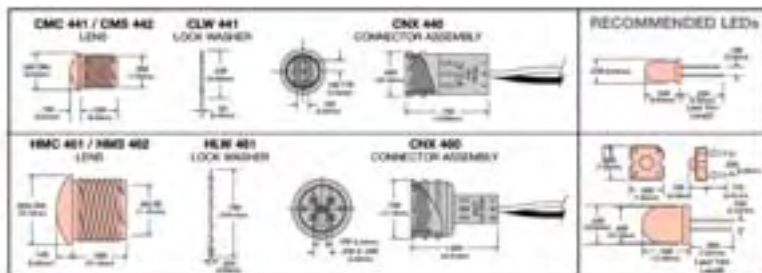




## Cable Assemblies for 5mm and 10mm LED Lights

## Features:

- Enhances LED apparent brightness as well as the viewing angle to 180°
- Sealed version exceeds NEMA 4 for dust, water and ice
- Tested for temperature cycling, UV, solar shock and vibration
- Plug and play approach simplifies cable installation



## Pre-Wired Solderless LED holders – Twist Fit

## 5mm Bi-Lead LED 24 AWG 2-wire/0.025" Header Post

| Part No. | Product No.       | Length (in.) | 1      | 10     | 100    | 500    |
|----------|-------------------|--------------|--------|--------|--------|--------|
| 673740   | CNX440-E02-4-1-04 | 4            | \$2.79 | \$1.79 | \$1.74 | \$1.52 |
| 673758   | CNX440-E02-4-1-08 | 8            | 2.79   | 1.99   | 1.74   | 1.52   |
| 673782   | CNX440-E02-4-1-12 | 12           | 3.05   | 1.94   | 1.88   | 1.60   |
| 673791   | CNX440-E02-4-1-18 | 18           | 3.15   | 2.05   | 1.98   | 1.68   |
| 673803   | CNX440-E02-4-1-24 | 24           | 3.25   | 2.13   | 2.06   | 1.76   |

## 5mm Bi-Lead LED 24 AWG 2-Wire/Stripped End

|        |                   |    |        |        |        |        |
|--------|-------------------|----|--------|--------|--------|--------|
| 673811 | CNX440-X02-4-1-04 | 4  | \$1.75 | \$1.17 | \$1.10 | \$0.86 |
| 673820 | CNX440-X02-4-1-08 | 8  | 1.85   | 1.81   | 1.78   | 1.73   |
| 673838 | CNX440-X02-4-1-12 | 12 | 1.95   | 1.91   | 1.88   | 1.83   |
| 673846 | CNX440-X02-4-1-18 | 18 | 1.95   | 1.36   | 1.32   | 1.11   |
| 673854 | CNX440-X02-4-1-24 | 24 | 2.05   | 1.48   | 1.43   | 1.19   |

## 10mm Bi-Lead LED 24 AWG 2-wire/0.025" Header Post

|        |                   |    |        |        |        |        |
|--------|-------------------|----|--------|--------|--------|--------|
| 673862 | CNX460-E02-4-1-04 | 4  | \$4.15 | \$2.65 | \$2.57 | \$2.25 |
| 673889 | CNX460-E02-4-1-08 | 8  | 4.15   | 2.65   | 2.57   | 2.25   |
| 673897 | CNX460-E02-4-1-12 | 12 | 4.25   | 2.80   | 2.72   | 2.33   |
| 673942 | CNX460-E02-4-1-18 | 18 | 4.29   | 2.88   | 2.79   | 2.41   |
| 673951 | CNX460-E02-4-1-24 | 24 | 4.39   | 2.98   | 2.89   | 2.49   |

## 10mm Bi-Lead LED 24 AWG 2-Wire/Stripped End

|        |                   |    |        |        |        |        |
|--------|-------------------|----|--------|--------|--------|--------|
| 673969 | CNX460-X02-4-1-04 | 4  | \$3.15 | \$1.99 | \$1.93 | \$1.68 |
| 673977 | CNX460-X02-4-1-08 | 8  | 3.15   | 1.99   | 1.93   | 1.68   |
| 673985 | CNX460-X02-4-1-12 | 12 | 3.25   | 2.13   | 2.06   | 1.76   |
| 674005 | CNX460-X02-4-1-18 | 18 | 3.35   | 2.23   | 2.16   | 1.84   |
| 674013 | CNX460-X02-4-1-24 | 24 | 3.45   | 2.31   | 2.24   | 1.92   |

Blue Part No. = Limited Quantity Available

CLIPLETE® Moisture Sealed  
Litepipe Assemblies

Designed to transmit light from PCB mounted LED (3mm and 5mm) and surface mount LEDs to the front panel display. These litepipes increase the apparent brightness of an LED and disperse the viewing angle of up to 180°. The litepipe assembly meets NEMA-3 for moisture and dust. Because there is no direct connection between the litepipe and LED, the circuit board can be installed or removed without disturbing the panel.



- Mounts in 0.281" holes with 3/8" centers on 1/32" to 1/8" panel thickness

| Part No. | Product No. | Length (in.) | Color | 1      | 10     | 100    | 500    |
|----------|-------------|--------------|-------|--------|--------|--------|--------|
| 675761   | LMS033CTP   | 0.33         | Clear | \$1.21 | \$1.07 | \$0.99 | \$0.94 |
| 675770   | LMS033RTP   | 0.33         | Red   | 1.23   | 1.07   | .99    | .94    |
| 675788   | LMS033GTP   | 0.33         | Green | 1.23   | 1.07   | .99    | .94    |
| 675796   | LMS053CTP   | 0.53         | Clear | 1.23   | 1.07   | .99    | .94    |
| 675809   | LMS053RTP   | 0.53         | Red   | 1.23   | 1.07   | .99    | .94    |
| 675817   | LMS053GTP   | 0.53         | Green | 1.21   | 1.07   | .99    | .94    |
| 675825   | LMS133CTP   | 1.33         | Clear | 1.21   | 1.07   | .99    | .94    |
| 675833   | LMS133RTP   | 1.33         | Red   | 1.21   | 1.07   | .99    | .94    |
| 675841   | LMS133GTP   | 1.33         | Green | 1.21   | 1.07   | .99    | .94    |

## Lens for Twist Style LED Holders

Includes: Lockwasher and retaining ring

Lower \$\$\$

## 5mm (T1 3/4) Standard Lens

| Part No. | Product No. | Color  | 1      | 10     | 100    | 500     |
|----------|-------------|--------|--------|--------|--------|---------|
| 674030   | CMC441RTP   | Red    | \$0.75 | \$0.54 | \$0.52 | \$0.384 |
| 674056   | CMC441GTP   | Green  | .75    | .54    | .52    | .384    |
| 677610   | CMC441BTP   | Blue   | .75    | .54    | .52    | .384    |
| 674064   | CMC441YTP   | Yellow | .75    | .54    | .52    | .384    |
| 674072   | CMC441ATP   | Amber  | .75    | .54    | .52    | .384    |

## 5mm (T1 3/4) Water Tight Lens

|        |           |        |        |        |        |        |
|--------|-----------|--------|--------|--------|--------|--------|
| 674081 | CMS442RTP | Red    | \$1.47 | \$0.97 | \$0.94 | \$0.74 |
| 677636 | CMS442ATP | Amber  | 1.45   | .97    | .94    | .74    |
| 674101 | CMS442GTP | Green  | 1.47   | .97    | .94    | .74    |
| 674110 | CMS442YTP | Yellow | 1.47   | .97    | .94    | .74    |
| 674128 | CMS442BTP | Blue   | 1.47   | .97    | .94    | .74    |

## 10mm Standard Lens

|        |           |        |        |        |        |        |
|--------|-----------|--------|--------|--------|--------|--------|
| 674136 | HMC461CTP | Clear  | \$1.04 | \$0.86 | \$0.71 | \$0.58 |
| 674144 | HMC461RTP | Red    | 1.00   | .86    | .71    | .58    |
| 674179 | HMC461GTP | Green  | 1.00   | .86    | .71    | .58    |
| 674187 | HMC461ATP | Amber  | 1.00   | .86    | .71    | .58    |
| 674195 | HMC461YTP | Yellow | 1.00   | .86    | .71    | .58    |
| 674208 | HMC461BTP | Blue   | 1.00   | .86    | .71    | .58    |

## 10mm Water Tight Lens

|        |           |        |        |        |        |        |
|--------|-----------|--------|--------|--------|--------|--------|
| 674216 | HMS462CTP | Clear  | \$1.85 | \$1.22 | \$1.19 | \$0.93 |
| 674224 | HMS462RTP | Red    | 1.85   | 1.22   | 1.19   | .93    |
| 674232 | HMS462GTP | Green  | 1.85   | 1.22   | 1.19   | .83    |
| 674241 | HMS462ATP | Amber  | 1.85   | 1.22   | 1.19   | .93    |
| 674259 | HMS462YTP | Yellow | 1.85   | 1.22   | 1.19   | .93    |
| 674267 | HMS462BTP | Blue   | 1.89   | 1.22   | 1.19   | .93    |

Blue Part No. = Limited Quantity Available

JAMECO ValuePro

## LED Light Strip Modules

- Typical applications: running light or light source for under cabinets, closets, RV's, enclosures



| Part No. | Product No.     | Color          | Input<br>Volt. Typ.<br>(V@mA) | Total<br>Flux Typ.<br>(lm) | Wave<br>Length<br>(nm) | Viewing<br>Angle<br>(Deg.) | Pricing |         |         |
|----------|-----------------|----------------|-------------------------------|----------------------------|------------------------|----------------------------|---------|---------|---------|
|          |                 |                |                               |                            |                        |                            | 1       | 10      | 25      |
| 683323   | LS1155-150A112  | Yellow         | 12 @ 150                      | 25                         | 590                    | 100                        | \$12.95 | \$12.29 | \$11.49 |
| 683235   | LS1255-150A112  | Yellow         | 12 @ 150                      | 25                         | 590                    | 100                        | 12.95   | 12.29   | 11.49   |
| 683331   | LS1155-525W404A | Red/blue/green | 4 @ 525                       | 12.5                       | —                      | 100                        | 18.95   | 17.95   | 16.95   |

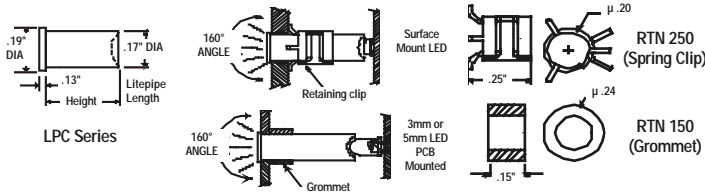
## We're Listening to What You Need

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Please send your requests to [NewProducts@Jameco.com](mailto:NewProducts@Jameco.com).



































## Litepipes For Standard and Surface-Mount LEDs

Designed to produce 160° viewing angle of transmitted light from PCB mounted LEDs. Accommodates both 3mm and surface mount LEDs. Litepipes are able to display single color devices or mix multi-colored LEDs into a single color. Sizes from 0.200" (5.08mm) to 2.00" (50.80mm). Use RTN grommet for sizes 0.20" thru 0.50" and RTN spring clip for sizes 0.50" to 2.00" (50.80mm).



\* Prepackaged: please order in increments of 10





| Part No. | Type  | Mounting Height | 1     | 10    | 100    | 1000   |
|----------|---|-----------------|-------|-------|--------|--------|
| 418108   | LPC020CTP    | 0.200"          | \$.35 | \$.32 | \$.244 | \$.205 |
| 418116   | LPC022CTP    | 0.220"          | .35   | .32   | .244   | .205   |
| 418124   | LPC024CTP    | 0.240"          | .35   | .32   | .244   | .205   |
| 418132   | LPC026CTP    | 0.260"          | .35   | .32   | .244   | .205   |
| 418141   | LPC028CTP    | 0.280"          | .35   | .32   | .244   | .205   |
| 418159   | LPC030CTP    | 0.300"          | .35   | .32   | .244   | .205   |
| 418167   | LPC032CTP    | 0.320"          | .35   | .32   | .244   | .205   |
| 418175   | LPC034CTP    | 0.340"          | .35   | .32   | .244   | .205   |
| 418183   | LPC036CTP    | 0.360"          | .35   | .32   | .244   | .205   |
| 418191   | LPC038CTP    | 0.380"          | .35   | .32   | .244   | .205   |
| 418204   | LPC040CTP    | 0.400"          | .35   | .32   | .244   | .205   |
| 418212   | LPC042CTP    | 0.420"          | .35   | .32   | .244   | .205   |
| 418221   | LPC044CTP    | 0.440"          | .35   | .32   | .244   | .205   |
| 418239   | LPC046CTP    | 0.460"          | .35   | .32   | .244   | .205   |
| 418247   | LPC048CTP    | 0.480"          | .35   | .32   | .244   | .205   |
| 418255   | LPC050CTP    | 0.500"          | .35   | .32   | .244   | .205   |
| 418263   | LPC056CTP    | 0.56"           | .35   | .32   | .244   | .205   |
| 418280   | LPC066CTP    | 0.66"           | .35   | .32   | .244   | .205   |
| 418301   | LPC076CTP    | 0.76"           | .35   | .32   | .244   | .205   |
| 418327   | LPC086CTP    | 0.86"           | .35   | .32   | .244   | .205   |
| 418271   | LPC060CTP   | 0.600"          | .35   | .32   | .244   | .205   |
| 418298   | LPC070CTP   | 0.700"          | .35   | .32   | .244   | .205   |
| 418319   | LPC080CTP  | 0.800"          | .35   | .32   | .244   | .205   |
| 418335   | LPC090CTP  | 0.900"          | .35   | .32   | .244   | .205   |
| 418343   | LPC096CTP  | 0.960"          | .35   | .32   | .244   | .205   |
| 418351   | LPC100CTP  | 1.00"           | .40   | .357  | .263   | .222   |
| 418360   | LPC125CTP  | 1.25"           | .40   | .357  | .263   | .222   |
| 418378   | LPC150CTP  | 1.50"           | .40   | .357  | .263   | .222   |
| 418386   | LPC160CTP  | 1.60"           | .40   | .357  | .263   | .222   |
| 418394   | LPC200CTP  | 2.00"           | .40   | .357  | .263   | .222   |
| 418407   | RTN150     | Grommet         | *     | .074  | .059   | .049   |
| 418415   | RTN250     | Spring clip     | *     | .093  | .059   | .056   |

## LED Mounting Hardware

- P/N 95521: for use with P/N 94545 and 34850, pg 44
- Color: black



Prepackaged: please order in increments of 10

| Part No. | Cross Ref. No.   | Description        | Mounting Hole Dia. | Panel Thickness | Pricing |       |       |
|----------|--|--------------------|--------------------|-----------------|---------|-------|-------|
|          |  |                    |                    |                 | 10      | 100   | 1000  |
| 95513    | LMH100  | T1 snap-in         | .185"              | Up to .070"     | \$.08   | \$.07 | \$.04 |
| 23077    | LMH200  | T1 3/4 ring & clip | .257"              | Up to .125"     | .15     | .14   | .12   |
| 95521    | LMH250  | Rect. snap-in      | .306" x .202"      | Up to .092"     | .20     | .15   | .13   |
| 379815   | —       | 10mm snap-in       | .539"              | Up to .1025"    | .39     | .332  | .266  |

## Electronics Pocket Reference

Third Edition McGraw-Hill Publishing

A pocket reference manual that provides definitions, passive component equations and color coding, parameters of standard semi-conductors, linear circuits, filters, power supply and regulation, electronic measurement and mathematical tables and formulas. (529 pages, 2000)

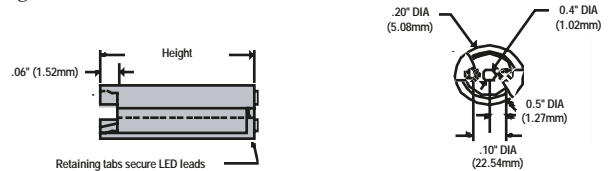
- Size: 4.0" x 6.0"
- Weight: 0.9 lbs.

| Part No. | Description                  | Price   |
|----------|------------------------------|---------|
| 174481   | Electronics Pocket Reference | \$26.95 |


































## PCB Standoffs for 2 and 3-Lead Components

Designed for PCB mounting of multi-lead devices (e.g. LEDs, IR emitter/detector lamps, resistors, capacitors and diodes). Provide lead separation, retention and lateral stability, and height control. Standoffs vary in height from 0.12" to 1.00". Standoffs are UL94V0 material.



Prepackaged: please order in increments of 10

| Part No. | Type   | Mounting Height | 10     | 100    | 1000   |
|----------|--|-----------------|--------|--------|--------|
| 418423   | STD120BLK    | 0.120"          | \$.093 | \$.068 | \$.058 |
| 418431   | STD140BLK    | 0.140"          | .093   | .068   | .058   |
| 418440   | STD160BLK    | 0.160"          | .093   | .068   | .058   |
| 418458   | STD180BLK    | 0.180"          | .093   | .068   | .058   |
| 418466   | STD200BLK    | 0.200"          | .093   | .068   | .058   |
| 418474   | STD220BLK    | 0.220"          | .093   | .068   | .058   |
| 418482   | STD240BLK    | 0.240"          | .093   | .068   | .058   |
| 418491   | STD250BLK    | 0.250"          | .093   | .068   | .058   |
| 418503   | STD260BLK    | 0.260"          | .093   | .068   | .058   |
| 418511   | STD280BLK    | 0.280"          | .093   | .068   | .058   |
| 418520   | STD300BLK    | 0.300"          | .093   | .068   | .058   |
| 418538   | STD320BLK    | 0.320"          | .093   | .068   | .058   |
| 418546   | STD340BLK    | 0.340"          | .093   | .068   | .058   |
| 418554   | STD360BLK    | 0.360"          | .093   | .068   | .058   |
| 418562   | STD380BLK    | 0.380"          | .093   | .068   | .058   |
| 418571   | STD400BLK    | 0.400"          | .093   | .068   | .058   |
| 418589   | STD420BLK    | 0.420"          | .093   | .068   | .058   |
| 418597   | STD440BLK    | 0.440"          | .093   | .068   | .058   |
| 418600   | STD460BLK    | 0.460"          | .093   | .068   | .058   |
| 418618   | STD480BLK    | 0.480"          | .093   | .068   | .058   |
| 418626   | STD500BLK    | 0.500"          | .093   | .068   | .058   |
| 418634   | STD550BLK    | 0.550"          | .093   | .068   | .058   |
| 418642   | STD600BLK    | 0.600"          | .093   | .068   | .058   |
| 418651   | STD650BLK   | 0.650"          | .093   | .068   | .058   |
| 418669   | STD700BLK   | 0.700"          | .093   | .068   | .058   |
| 418677   | STD750BLK  | 0.750"          | .093   | .068   | .058   |
| 418685   | STD800BLK  | 0.800"          | .093   | .068   | .058   |
| 418693   | STD850BLK  | 0.850"          | .093   | .068   | .058   |
| 418706   | STD900BLK  | 0.900"          | .093   | .068   | .058   |
| 418714   | STD950BLK  | 0.950"          | .093   | .068   | .058   |
| 418722   | STD1.0BLK  | 1.000"          | .093   | .068   | .058   |

## LEDs & LED Mounting Hardware Kit

Includes:

- 20-drawer component cabinet (319600), 20 clear plastic drawers (319601), 20 clear dividers (319611), pg 307 and labels
- 10 ea. standard-output LEDs (34657, 114673, 114681, 34606, 34825, 34711, 104248), pg 43 (34690, 11359, 34761, 104256, 34673), pg 44
- 10 ea. HLMP series LEDs (11797), pg 46
- 10 ea. LED lens mount (14277), pg 46
- 100 ea. LEDs (94529, 135597), pg 43
- 100 ea. LED mounting hardware (95513, 23077), pg 49



SAVE \$25

| Part No. | Description   | Wt. (lbs.) | 1       | 10      |
|----------|---------------|------------|---------|---------|
| 84996    | 560 piece kit | 5.0        | \$66.95 | \$60.25 |

## 30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 322.

# 7-Segment LED Displays

More LEDs at [www.Jameco.com/Prod/LEDs](http://www.Jameco.com/Prod/LEDs)

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |

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## 7-Segment LED Displays

The general advantages of LED displays compared to incandescent types include:

- Lower power consumption
- Longer lifetime (average of more than 300,000 hours)
- Compact size suitable for instrumentation and graphic representations

### Soldering:

- Soldering bath: not more than 5 seconds @ 260°C
- Soldering iron: not more than 3 seconds @ 300°C under 30W

**Quantity SAVE**

Single Digit RHDP

Single Digit RHDP/LHDP

2-Digit RHDP



3-Digit RHDP



4x7 Hex Character



Dot Matrix



10-Bargraph



202526 pg 51

5"

| Part No. | Cross Ref. No.    | Character Height | Illuminated Color | Bus Polarity* | Pins/Leads | Typical Vf @ If (mA) | Typical mcd @ mA | Wavelength nm | Decimal Point # | Pricing |        |        |        |
|----------|-------------------|------------------|-------------------|---------------|------------|----------------------|------------------|---------------|-----------------|---------|--------|--------|--------|
|          |                   |                  |                   |               |            |                      |                  |               |                 | 1       | 10     | 100    | 1000   |
| 320469   | UA3031-16-EWRN    | 0.30"            | Yellow            | CA            | 11         | 3.0 @ 20             | 2.3 @ 10         | 585           | LHDP/RHDP       | \$ .78  | \$ .70 | \$ .63 | \$ .95 |
| 334984   | UA3051-12         | 0.30"            | Red               | CA            | 10         | 2.1 @ 20             | 0.8 @ 10         | 700           | RHDP            | .78     | .69    | .61    | .478   |
| 395639   | UA3051-16EWRN     | 0.30"            | Red               | CA            | 11         | 3.0 @ 20             | 0.8 @ 10         | 700           | LHDP/RHDP       | 1.09    | .98    | .96    | .81    |
| 334800   | UC3051-11         | 0.30"            | Red               | CC            | 10         | 2.1 @ 20             | 0.8 @ 10         | 700           | RHDP            | .78     | .76    | .61    | .478   |
| 334802   | UC3041R-11        | 0.30"            | Hi-eff Red        | CC            | 10         | 2.1 @ 20             | 3.3 @ 10         | 635           | RHDP            | .68     | .60    | .54    | .49    |
| 334810   | UC3041R-20        | 0.30"            | Hi-eff Red        | CC            | 10         | 2.1 @ 20             | 3.3 @ 10         | 635           | LHDP/RHDP       | .94     | .85    | .69    | .52    |
| 335011   | UA3041-12         | 0.30"            | Orange            | CA            | 10         | 2.1 @ 20             | 3.3 @ 10         | 635           | RHDP            | .74     | .67    | .53    | .44    |
| 332527   | UC3671-11-M1-EWAK | 0.36"            | Super Bright Red  | CA            | 10         | 1.7 @ 20             | 6.0 @ 10         | 643           | RHDP            | 1.02    | .93    | .74    | .55    |
| 334836   | UA4071-11-UR EWAK | 0.40"            | Red               | CA            | 10         | 1.9 @ 20             | 25.6 @ 10        | 660           | RHDP            | .96     | .86    | .78    | .59    |
| 335021   | UA4051-11         | 0.40"            | Red               | CA            | 10         | 2.1 @ 20             | 0.8 @ 10         | 700           | RHDP            | .69     | .62    | .432   | .41    |
| 334844   | UC4041R-11        | 0.40"            | Hi-eff Red        | CC            | 10         | 2.1 @ 20             | 3.3 @ 10         | 635           | RHDP            | .77     | .69    | .56    | .423   |
| 334828   | UC4041-11         | 0.40"            | Orange            | CC            | 10         | 2.1 @ 20             | 3.3 @ 10         | 635           | RHDP            | .85     | .77    | .61    | .46    |
| 335054   | UN4043-13 EWRS    | 0.40"            | Orange            | 3-digit CA    | 12         | 2.1 @ 20             | 3.3 @ 10         | 635           | RHDP            | 1.95    | 1.71   | 1.37   | 1.03   |
| 334852   | UC4031-11         | 0.40"            | Yellow            | CC            | 10         | 2.1 @ 20             | 2.3 @ 10         | 585           | RHDP            | .88     | .79    | .63    | .48    |
| 335038   | UA4021-11         | 0.40"            | Green             | CA            | 10         | 2.1 @ 20             | 2.9 @ 10         | 567           | RHDP            | .88     | .79    | .71    | .53    |
| 335214   | UC5442-11 EWRS    | 0.54"            | Orange            | 2-digit CC    | 18         | 2.1 @ 20             | 3.3 @ 10         | 635           | RHDP            | 2.59    | 2.33   | 1.86   | 1.39   |
| 335222   | UA5422-11 EWRS    | 0.54"            | Green             | 2-digit CA    | 18         | 2.1 @ 20             | 2.9 @ 10         | 567           | RHDP            | 1.79    | 1.61   | 1.28   | .96    |
| 334887   | UC5651-11         | 0.56"            | Red               | CC            | 10         | 2.1 @ 20             | 0.8 @ 10         | 700           | RHDP            | 1.00    | .90    | .81    | .73    |
| 334933   | UC5652-11         | 0.56"            | Red               | 2-digit CC    | 18         | 2.1 @ 20             | 0.8 @ 10         | 700           | RHDP            | .95     | .90    | .68    | .65    |
| 334960   | UA5652-11         | 0.56"            | Red               | 2-digit CA    | 18         | 2.1 @ 20             | 0.8 @ 10         | 700           | RHDP            | 1.39    | 1.32   | .98    | .94    |
| 335090   | UA5651-11         | 0.56"            | Red               | CA            | 10         | 2.1 @ 20             | 0.8 @ 10         | 700           | RHDP            | 1.04    | .99    | .87    | .70    |
| 334896   | UC5641R-11        | 0.56"            | Hi-eff Red        | CC            | 10         | 2.1 @ 20             | 3.3 @ 10         | 635           | RHDP            | .76     | .74    | .51    | .401   |
| 334942   | UC5642R-11        | 0.56"            | Hi-eff Red        | 2-digit CC    | 18         | 2.1 @ 20             | 3.3 @ 10         | 635           | RHDP            | 1.18    | .95    | .80    | .64    |
| 334976   | UA5642R-11        | 0.56"            | Hi-eff Red        | 2-digit CA    | 18         | 2.1 @ 20             | 3.3 @ 10         | 635           | RHDP            | .85     | .84    | .63    | .60    |
| 335101   | UA5641R-11        | 0.56"            | Hi-eff Red        | CA            | 10         | 2.1 @ 20             | 3.3 @ 10         | 635           | RHDP            | .75     | .67    | .50    | .394   |
| 335312   | UA5641-11         | 0.56"            | Orange            | CA            | 10         | 2.1 @ 20             | 3.3 @ 10         | 635           | RHDP            | .60     | .50    | .40    | .38    |
| 334879   | UC5641-11         | 0.56"            | Orange            | CC            | 10         | 2.1 @ 20             | 3.3 @ 10         | 635           | RHDP            | .65     | .60    | .416   | .401   |
| 335152   | UA5642-11         | 0.56"            | Orange            | 2-digit CA    | 18         | 2.1 @ 20             | 3.3 @ 10         | 635           | RHDP            | .88     | .81    | .64    | .58    |
| 334924   | UC5642-11         | 0.56"            | Orange            | 2-digit CC    | 18         | 2.1 @ 20             | 3.3 @ 10         | 635           | RHDP            | 1.12    | 1.00   | .80    | .75    |
| 335185   | UM5644R-11 RRRS   | 0.56"            | Orange            | 4-digit CC    | 12         | 2.1 @ 20             | 3.3 @ 10         | 635           | RHDP            | 2.75    | 2.57   | 2.46   | 1.84   |
| 335127   | UA5621-11         | 0.56"            | Green             | CA            | 10         | 2.1 @ 20             | 2.9 @ 10         | 562           | RHDP            | .75     | .61    | .40    | .38    |
| 334862   | UC5621-11         | 0.56"            | Green             | CC            | 10         | 2.1 @ 20             | 2.9 @ 10         | 567           | RHDP            | .81     | .80    | .546   | .423   |
| 334917   | UC5622-11         | 0.56"            | Green             | 2-digit CC    | 18         | 2.1 @ 20             | 2.9 @ 10         | 567           | RHDP            | 1.04    | .99    | .74    | .70    |
| 335169   | UC5624-11 EWRS    | 0.56"            | Green             | 4-digit CC    | 36         | 2.1 @ 20             | 2.9 @ 10         | 567           | RHDP            | 2.59    | 2.33   | 1.87   | 1.40   |
| 335177   | UA5624-11 EWRS    | 0.56"            | Green             | 4-digit CA    | 36         | 2.1 @ 20             | 2.9 @ 10         | 567           | RHDP            | 2.75    | 2.47   | 2.25   | 1.69   |
| 335194   | UM5624-11 EWRS    | 0.56"            | Green             | 4-digit CC    | 12         | 2.1 @ 20             | 2.9 @ 10         | 567           | RHDP            | 2.59    | 2.34   | 2.24   | 1.64   |
| 334908   | UC8041-21 EWRS    | 0.80"            | Orange            | CC            | 13         | 2.1 @ 20             | 3.8 @ 10         | 635           | RHDP            | 1.16    | 1.05   | .94    | .85    |
| 335281   | UJ1141-21 EWRN    | 1.20"            | Orange            | 5 x 7 CC/AR   | 14         | 2.1 @ 20             | 4.6 @ 10         | 635           | —               | 3.89    | 3.50   | 2.80   | 2.10   |
| 335290   | UJ2041-22 EWRN    | 2.00"            | Orange            | 5 x 7 CC/AR   | 14         | 2.1 @ 20             | 6.0 @ 10         | 630           | —               | 3.39    | 3.15   | 2.90   | 2.73   |

### Other Manufacturers — Great Deals

|        |                |       |            |            |    |          |          |     |      |        |        |        |        |
|--------|----------------|-------|------------|------------|----|----------|----------|-----|------|--------|--------|--------|--------|
| 24731  | LSD3021-11     | 0.30" | Red        | CA         | 11 | 1.9 @ 20 | 0.3 @ 20 | 697 | RHDP | \$ .95 | \$ .86 | \$ .68 | \$ .61 |
| 24740  | LSD3221-11     | 0.30" | Red        | CA         | 11 | 2.1 @ 20 | 2.5 @ 20 | 697 | LHDP | .79    | .72    | .64    | .58    |
| 24782  | LSD3211-11     | 0.30" | Red        | CC         | 10 | 2.1 @ 20 | 2.5 @ 20 | 697 | RHDP | .89    | .75    | .65    | .49    |
| 17187  | LSD5051-11     | 0.50" | Red        | CC         | 10 | 2.1 @ 20 | 0.9 @ 20 | 697 | RHDP | .89    | .80    | .64    | .481   |
| 17208  | LSD5061-11     | 0.50" | Red        | CA         | 10 | 2.1 @ 20 | 0.9 @ 20 | 697 | RHDP | .89    | .80    | .64    | .481   |
| 104213 | LSD5124-10     | 0.56" | Orange Red | CA         | 10 | 2.0 @ 20 | 2.4 @ 20 | 635 | RHDP | .80    | .68    | .60    | .45    |
| 308224 | LM5643R-11RRRN | 0.56" | Orange     | 3-digit CC | 11 | 2.1 @ 20 | 3.3 @ 10 | 635 | RHDP | 1.89   | 1.69   | 1.35   | 1.01   |
| 308232 | LM5644R-11RRRN | 0.56" | Orange     | 4-digit CC | 12 | 2.1 @ 20 | 3.3 @ 10 | 635 | RHDP | 3.15   | 2.69   | 2.15   | 1.61   |
| 24715  | LDD5121-20     | 0.56" | Red        | 2-digit CA | 18 | 2.1 @ 20 | 0.8 @ 20 | 697 | RHDP | 1.25   | 1.05   | .89    | .75    |
| 24723  | LDD5111-11     | 0.56" | Red        | 2-digit CC | 18 | 2.1 @ 20 | 0.8 @ 20 | 697 | RHDP | 1.25   | 1.05   | .89    | .75    |
| 24694  | LDD5124        | 0.56" | Orange Red | 2-digit CA | 18 | 2.0 @ 20 | 2.4 @ 20 | 635 | RHDP | 1.69   | 1.52   | 1.22   | .91    |
| 24707  | LDD5114-20     | 0.56" | Orange Red | 2-digit CC | 18 | 2.0 @ 20 | 2.4 @ 20 | 635 | RHDP | 1.59   | 1.43   | .98    | .69    |
| 18737  | LSD816-11      | 0.80" | Orange Red | CA         | 13 | 1.6 @ 20 | 0.9 @ 20 | 655 | RHDP | 1.18   | 1.15   | 1.10   | .99    |

\* CA-Common Anode/CC-Common Cathode/AR-Anode Row # LHDP-Left Hand Decimal Point / RHDP-Right Hand Decimal Point † 14 segment ⚡ Blue Part No. = Limited Quantity Available




⚡ RoHS compliant product ⚡ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)



## 7-Segment LED Displays (Continued)

**Quantity SAVE**

See pg 50 for photos

| LEDTECH  |                  |  |                   | Other Manufacturers — Great Deals |            |                      |                  |               |                 |  |        |  |        |
|----------|------------------|---|-------------------|-----------------------------------|------------|----------------------|------------------|---------------|-----------------|---|--------|---|--------|
| Part No. | Cross Ref. No.   | Character Height  | Illuminated Color | Bus Polarity*                     | Pins/Leads | Typical Vf @ If (mA) | Typical mcd @ mA | Wavelength nm | Decimal Point # | Pricing   |        |   |        |
|          |                  |   |                   |                                   |            |                      |                  |               |                 | 1   | 10     | 100   | 1000   |
| 308259   | LA8071-11-MIEWRW | 0.80"   | Red               | CA                                | 13         | 1.7 @ 20             | 8.9 @ 10         | 660           | LHDP/RHDP       | \$1.55  | \$1.37 | \$1.24  | \$0.93 |
| 18753    | LSD8151-10       | 0.80"   | Red               | CC                                | 13         | 2.1 @ 20             | 1.0 @ 20         | 697           | RHDP            | 1.29  | 1.14   | .97   | .87    |
| 97172    | LSD10061-10      | 1.0"  | Red               | CA                                | 10         | 2.1 @ 20             | 2.0 @ 20         | 697           | RHDP            | 1.39  | 1.25   | 1.12  | .99    |
| 97199    | LSD23265-10      | 2.24"   | Red               | CA                                | 10         | 1.7 @ 20             | 21 @ 20          | 660           | RHDP            | 5.75  | 5.19   | 4.69  | 4.19   |
| 97201    | LSD23255-10      | 2.24"   | Red               | CC                                | 10         | 1.7 @ 20             | 21 @ 20          | 660           | RHDP            | 3.35  | 3.00   | 2.85  | 2.70   |
| 202518   | LSD30165-20      | 3.0"  | Orange Red        | CA                                | 10         | 8 @ 20               | 4.5 @ 10         | 635           | RHDP            | 7.39  | 6.65   | 5.98  | 5.39   |
| 202542   | LSD30155-20      | 3.0"  | Orange Red        | CC                                | 10         | 8 @ 20               | 4.5 @ 10         | 635           | RHDP            | 5.49  | 4.95   | 4.45  | 4.05   |
| 105591   | LSD40054-20      | 4.0"  | Orange Red        | CC                                | 10         | 2.0 @ 20             | 18 @ 20          | 635           | RHDP            | 9.49  | 8.54   | 6.83  | 5.45   |
| 202500   | LSD40064-20      | 4.0"  | Orange Red        | CA                                | 10         | 2.0 @ 20             | 18 @ 10          | 635           | RHDP            | 10.49   | 9.49   | 8.59  | 7.79   |
| 202526   | LSD50065-20      | 5.0"  | Red               | CA                                | 10         | 17 @ 20              | 45 @ 10          | 660           | RHDP            | 27.09   | 24.38  | 19.51   | 14.63  |
| 202534   | LSD50055-20      | 5.0"  | Red               | CC                                | 10         | 17 @ 20              | 45 @ 10          | 660           | RHDP            | 20.79   | 16.61  | 14.99   | 11.24  |

\* CA-Common Anode/CC-Common Cathode

# LHDP-Left Hand Decimal Point / RHDP-Right Hand Decimal Point

† 5 diodes per segment

## LITEON 7-Segment LED Displays

**NEW**

For more LiteOn LED Displays visit [www.Jameco.com](http://www.Jameco.com)

| Part No. | Cross Ref. No. | Character Height | Illuminated Color | Bus Polarity* | Pins/Leads | Typical Vf @ If (mA) | Typical mcd @ mA | Wavelength nm | Decimal Point # | Pricing |        |        |        |
|----------|----------------|------------------|-------------------|---------------|------------|----------------------|------------------|---------------|-----------------|---------|--------|--------|--------|
|          |                |                  |                   |               |            |                      |                  |               |                 | 1       | 10     | 100    | 1000   |
| 789988   | LTC-2621JD     | 0.28"            | Hi-eff Red        | 3-digit CA    | 13         | 2.1 @ 20             | 6 @ 1            | 640           | RHDP            | \$2.19  | \$1.98 | \$1.80 | \$1.64 |
| 789970   | LTC-2621G      | 0.28"            | Green             | 3-digit CA    | 13         | 2.1 @ 20             | 2 @ 10           | 569           | RHDP            | 1.85    | 1.78   | 1.73   | 1.65   |
| 789953   | LSHD-7501      | 0.30"            | Red               | CA            | 10         | 2.1 @ 20             | 12 @ 10          | 624           | RHDP            | .65     | .63    | .61    | .59    |
| 78201    | LTS-312AHR     | 0.30"            | Hi-eff Red        | CA            | 11         | 2.1 @ 20             | 2.0 @ 10         | 623           | RHDP/LHDP       | .86     | .78    | .71    | .65    |
| 790532   | LTS-313AHR     | 0.30"            | Hi-eff Red        | CC            | 10         | 2.0 @ 20             | 2.0 @ 10         | 623           | RHDP            | 1.25    | 1.05   | .95    | .61    |
| 790516   | LTS-312AG      | 0.30"            | Green             | CA            | 11         | 2.1 @ 20             | 2.0 @ 10         | 569           | RHDP/LHDP       | .63     | .62    | .60    | .56    |
| 790559   | LTS-360HR      | 0.36"            | Hi-eff Red        | CA            | 10         | 2.0 @ 20             | 2.0 @ 10         | 623           | RHDP            | 1.25    | 1.05   | .95    | .65    |
| 790575   | LTS-4940AHR    | 0.40"            | Hi-eff Red        | CC            | 11         | 2.0 @ 20             | 2.2 @ 10         | 623           | RHDP            | 1.08    | .91    | .82    | .56    |
| 789996   | LTC-4627JR     | 0.40"            | Super Red         | 4-digit CA    | 14         | 2.0 @ 20             | 0.65 @ 1         | 631           | RHDP            | 2.35    | 2.21   | 2.14   | 2.07   |
| 790591   | LTS-546AHR     | 0.52"            | Hi-eff Red        | CA            | 10         | 2.0 @ 20             | 2.2 @ 10         | 623           | RHDP            | 1.49    | 1.26   | 1.14   | .78    |
| 790612   | LTS-5703AY     | 0.56"            | Yellow            | CC            | 10         | 2.1 @ 20             | 2.4 @ 10         | 588           | RHDP            | 1.46    | 1.23   | 1.11   | .76    |
| 697485   | LTD-6910HR     | 0.56"            | Red               | 2-digit CA    | 18         | 2.0 @ 150            | 3.9 @ 10         | 635           | RHDP            | .99     | .91    | .81    | .78    |
| 790031   | LTD-6940HR     | 0.56"            | Hi-eff Red        | 2-digit CC    | 18         | 2.0 @ 20             | 2.4 @ 10         | 623           | RHDP            | .89     | .87    | .84    | .81    |
| 790006   | LTC-5723HR     | 0.56"            | Hi-eff Red        | 4-digit CC    | 12         | 2.0 @ 20             | 2.4 @ 10         | 623           | RHDP            | 1.99    | 1.93   | 1.87   | 1.81   |
| 790639   | LTS-6460G      | 0.56"            | Green             | CA            | 10         | 2.1 @ 20             | 2.4 @ 10         | 569           | RHDP            | 1.46    | 1.23   | 1.11   | .76    |
| 790014   | LTD-5621AG     | 0.56"            | Green             | 2-digit CA    | 18         | 2.1 @ 20             | 2.4 @ 10         | 569           | RHDP            | .99     | .96    | .94    | .91    |
| 790022   | LTD-6410G      | 0.56"            | Green             | 2-digit CA    | 18         | 2.1 @ 20             | 2.4 @ 10         | 569           | RHDP            | .89     | .89    | .81    | .81    |

\* CA-Common Anode/CC-Common Cathode

# LHDP-Left Hand Decimal Point / RHDP-Right Hand Decimal Point

## Dot Matrix and Bargraph LED Displays

**Quantity SAVE**

| Part No. | Cross Ref. No.   | Jameco Socket Number | Character Height | Illuminated Color | Bus Polarity*     | Pins/Leads | Typical Vf @ If (mA) | Typical mcd @ mA | Wavelength nm | Decimal Point # | Pricing |         |         |         |
|----------|------------------|----------------------|------------------|-------------------|-------------------|------------|----------------------|------------------|---------------|-----------------|---------|---------|---------|---------|
|          |                  |                      |                  |                   |                   |            |                      |                  |               |                 | 1       | 10      | 100     | 1000    |
| 32951    | TIL311           | 37162                | 0.300"           | Red               | 4x7 Hex character | 11         | 5.0 @ 5              | 0.1 @ 5          | 660           | —               | \$16.95 | \$14.35 | \$12.20 | \$11.45 |
| 218843   | CSM57041T-11     | —                    | 0.700"           | Red               | 5 x 7 CC/CR       | 12         | 1.8 @ 20             | 8 @ 20           | 660           | —               | 1.95    | 1.76    | 1.40    | 1.05    |
| 206560   | LTP2157AG        | —                    | 2.0"             | Green             | 5 x 7 CC/AR       | 14         | 3.7 @ 80             | 4.8 @ 80         | 565           | —               | 1.85    | 1.65    | 1.49    | 1.34    |
| 183265   | LMD5821ASR-20    | —                    | 2.3"             | Red               | 5 x 8 CC/AR       | 14         | 1.7 @ 20             | 12 @ 20          | 660           | —               | 4.95    | 4.49    | 3.95    | 2.96    |
| 334511   | UL10000-E-EWAK   | —                    | —                | Green             | Bargraph          | 4          | 2.1 @ 20             | 1.4 @ 10         | 567           | —               | 1.22    | .99     | .81     | .65     |
| 334529   | UL10000-HR-BRARR | —                    | —                | Red               | Bargraph          | 4          | 2.1 @ 20             | 1.6 @ 10         | 635           | —               | 1.18    | .95     | .78     | .63     |
| 334537   | UL10000-Y-EWAK   | —                    | —                | Yellow            | Bargraph          | 4          | 2.1 @ 20             | 1.1 @ 10         | 585           | —               | 1.15    | 1.04    | .83     | .62     |
| 697469   | LTA-1000C        | —                    | —                | Green             | Bargraph          | 20         | 2.1 @ 20             | 2.0 @ 10         | 565           | —               | 1.02    | .86     | .69     | .61     |
| 697477   | LTA-1000HR       | —                    | —                | Hi-eff red        | Bargraph          | 20         | 2.0 @ 20             | 2.0 @ 10         | 635           | —               | 1.02    | .86     | .69     | .56     |
| 697493   | LTL-2685HR       | —                    | —                | Red               | Lightbar          | 16         | 2.0 @ 20             | 8.0 @ 10         | —             | —               | 1.59    | 1.35    | 1.22    | .80     |
| 697506   | LTL-2885G        | —                    | —                | Green             | Lightbar          | 16         | 2.1 @ 20             | 16.0 @ 10        | —             | —               | 1.59    | 1.35    | 1.21    | .95     |

\* CA-Common Anode/CC-Common Cathode/AC-Anode Column/CR-Cathode Row/AR-Anode Row

# LHDP-Left Hand Decimal Point / RHDP-Right Hand Decimal Point

† Bargraph

### JAMECO BenchPro 2-50mA LED Tester

This pocket-size LED tester makes it easy to check functionality, color, brightness and uniformity. Plug any leaded LED into one of 12 positions on the socket strip to test at current ratings from 2-50mA. The seven middle positions on the strips are set at 10mA allowing comparison of LEDs in those spaces.  
**Requires:** 9V battery (recommend P/N 198791, pg 250)  
 • Size: 3.2"L x 2.4"W x 0.9"H



| Part No. | Description | Price  |
|----------|-------------|--------|
| 354968   | LED tester  | \$7.95 |

▲ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

### JAMECO BenchPro 2-150mA LED Tester

Pocket-size LED tester makes it easy to check functionality, color, brightness and uniformity. Plug any leaded LED into one of the 13 positions on the tester at current ratings ranging from 2-30mA. Another 13 position strip ranging from 20mA to 150mA to test other types of LEDs with ACA (anode-cathode-anode) or CAC (cathode-anode-cathode) pin configuration. Includes 9V battery.  
 • Size: 3.1"L x 2.2"W x 0.9"H

**EXCLUSIVE**



| Part No. | Description | Price  |
|----------|-------------|--------|
| 355805   | LED tester  | \$8.95 |

### valleman 2-Digit Serial LED Display with Serial Interface Kit

- Bright, red jumbo-sized 7-segment displays (57mm)
- Easy platform control via RS-232 3-wire interface
- Multiple units can be linked easily to create large readout for score-keeping, timing, counting and other applications
- Up to 255 units can be separately addressed
- Power supply: 9-12VDC @ 120mA per display
- RS-232 interface: 2400 baud/8 data bits/no parity/one stop bit
- Size: 2.9"H x 2.3"W x 1.3"D



| Part No. | Description | Price   |
|----------|-------------|---------|
| 645221   | LED display | \$47.29 |

# Infrared LEDs, Detectors & Replacement Lamps

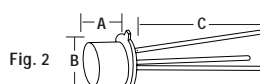
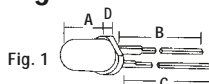
Color Code Legend  
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JAMECO ValuePro

## Infrared and Visible Light Emitters and Detectors

A Jameco EXCLUSIVE

- Use for remote control and/or for fiber optics
- P/N 133946: Can be used with cameras, see page 267 (peak emission wavelength: 940nm @ 20mA)



| Part No. | Cross Ref. No. | Fig. | Description                             | Size            | Diameter inch/mm | Dimensions (inches) |      |      |      | Vf @ If     | nm  | mWatts | Pricing |         |         |         |
|----------|----------------|------|---|-----------------|------------------|---------------------|------|------|------|-------------|-----|--------|---------|---------|---------|---------|
|          |                |      |   |                 |                  | A                   | B    | C    | D    |             |     |        | 1       | 10      | 100     | 1000    |
| 372710   | UT0383-41-940  | 1    | Infrared emitter diode (GaAs)           | T1              | 0.125/3          | 0.16                | 0.88 | 0.94 | 0.04 | 1.3V @ 50mA | 940 | 13     | \$ .23  | \$ .225 | \$ .151 | \$ .136 |
| 372728   | UT0385-41-880  | 1    | Infrared emitter diode (GaAs)           | T1              | 0.125/3          | 0.16                | 0.88 | 0.94 | 0.04 | 1.3V @ 50mA | 880 | 13     | .30     | .28     | .176    | .165    |
| 372737   | UT1883-81-880  | 1    | Infrared emitter diode (GaAs)           | T1 3/4          | 0.200/5          | 0.30                | 0.88 | 0.94 | 0.04 | 1.5V @ 50mA | 880 | 16     | .32     | .22     | .176    | .158    |
| 372745   | UT1885-81-880  | 2    | Infrared emitter diode (GaAs)           | T1 3/4          | 0.200/5          | 0.30                | 0.88 | 0.94 | 0.04 | 1.5V @ 50mA | 880 | 16     | .30     | .28     | .176    | .158    |
| 372761   | UT1883-91-940  | 1    | Infrared emitter diode (GaAs)           | T1 3/4          | 0.200/5          | 0.3                 | 0.88 | 0.94 | 0.04 | 1.3V @ 50mA | 940 | 16     | .25     | .197    | .129    | .097    |
| 372779   | UT1885-81-940  | 1    | Infrared emitter diode (GaAs)           | T1 3/4          | 0.200/5          | 0.3                 | 0.88 | 0.94 | 0.04 | 1.3V @ 50mA | 940 | 16     | .29     | .23     | .151    | .136    |
| 372817   | UT6W83-AE-940  | 3    | Infrared emitter diode (GaAs), sidelook | 4.45mm x 2.31mm | —                | —                   | —    | —    | —    | 1.3V @ 50mA | 940 | 50     | .29     | .23     | .144    | .13     |
| 372964   | UT0393-46-0125 | 1    | Infrared phototransistor                | T1              | 0.125/3          | 0.16                | 0.88 | 0.94 | 0.04 | —           | —   | —      | .25     | .24     | .185    | .167    |
| 372971   | UT0395-46-0125 | 2    | Infrared phototransistor                | T1              | 0.125/3          | 0.16                | 0.88 | 0.94 | 0.04 | —           | —   | —      | .25     | .24     | .185    | .167    |
| 373000   | UT1893-91-0125 | 1    | Infrared phototransistor                | T1 3/4          | 0.200/5          | —                   | —    | —    | —    | —           | —   | —      | .26     | .25     | .192    | .173    |
| 373042   | UT6W93-AE-0125 | 3    | Infrared phototransistor, side view     | 4.45mm x 2.31mm | —                | —                   | —    | —    | —    | —           | —   | —      | .30     | .28     | .22     | .198    |

### Other Manufacturers — Great Deals

|        |                |   |                               |        |         |      |      |      |      |             |     |   |        |        |        |        |
|--------|----------------|---|-------------------------------|--------|---------|------|------|------|------|-------------|-----|---|--------|--------|--------|--------|
| 112150 | LIR2043        | 1 | Infrared emitter diode (GaAs) | T1     | 0.125/3 | 0.18 | 0.95 | 0.98 | 0.03 | 1.2V @ 20mA | 940 | 5 | \$ .22 | \$ .18 | \$ .14 | \$ .12 |
| 133946 | SLI-0308CP     | 1 | Infrared emitter diode (GaAs) | T1     | 0.12/3  | 0.22 | 0.98 | 1.00 | 0.03 | 1.3V @ 50mA | 940 | 4 | .62    | .53    | .40    | .31    |
| 112176 | LPT2023        | 1 | Infrared phototransistor      | T1     | 0.12/3  | 0.18 | 0.95 | 0.98 | 0.03 | —           | 940 | — | .39    | .29    | .19    | .15    |
| 106526 | LVIR3333       | 1 | Infrared emitter diode (GaAs) | T1 3/4 | 0.200/5 | 0.34 | 0.78 | 0.84 | 0.04 | 1.2V @ 20mA | 940 | 8 | .39    | .29    | .19    | .15    |
| 112169 | LT1893-82-0125 | 1 | Infrared phototransistor      | T1 3/4 | 0.200/5 | 0.31 | 1.05 | 1.10 | 0.04 | —           | 940 | — | .36    | .30    | .24    | .20    |
| 120221 | BPW77NA        | 2 | Visible light phototransistor | TO-18  | —       | 0.24 | 0.19 | 0.52 | —    | —           | 850 | — | 1.99   | 1.89   | 1.55   | 1.21   |

Lens color: 1 = water clear; 2 = blue clear

LITEON

NEW

### Infrared Light Emitters

For more LiteOn Infrared LEDs visit [www.Jameco.com](http://www.Jameco.com)

\* Minimum order 5 pieces

| Part No. | Cross Ref. No. | Fig. | Description                      | Size          | Diameter inch/mm | Dimensions (inches) |      |      |      | Vf @ If     | nm  | mWatts | Pricing |         |         |         |
|----------|----------------|------|----------------------------------|---------------|------------------|---------------------|------|------|------|-------------|-----|--------|---------|---------|---------|---------|
|          |                |      |                                  |               |                  | A                   | B    | C    | D    |             |     |        | 1       | 5       | 50      | 500     |
| 790049   | LTE-2871       | 1    | Infrared emitter diode           | T1 3/4        | 0.197/5          | 0.3                 | 0.96 | 1.00 | 0.04 | 1.2V @ 20mA | 940 | 90     | *       | \$ .194 | \$ .157 | \$ .123 |
| 790057   | LTE-302        | 3    | Infrared emitter diode, sidelook | 4.4mm x 5.7mm | —                | —                   | —    | —    | —    | 1.2V @ 20mA | 940 | 75     | *       | .194    | .157    | .123    |
| 790065   | LTE-3376       | 1    | Infrared emitter diode           | T1 3/4        | 0.197/5          | 0.3                 | 0.94 | 0.98 | 0.04 | 1.6V @ 50mA | 850 | 200    | *       | .295    | .273    | .262    |
| 790073   | LTE-4238C      | 1    | Infrared emitter diode           | T1 3/4        | 0.197/5          | 0.3                 | 0.96 | 1.00 | 0.04 | 1.3V @ 20mA | 880 | 150    | *       | .372    | .351    | .31     |

JAMECO ValuePro

### LED Replacement Lamps – 585 Series

- Low current draw – 90% less energy than incandescent
- No heat generated
- Long life – up to 100k hours
- Mounts directly into industry standard socket

#### Multi-Chip Based LED T1 - Midget Flange - Polarized

- Replaces incandescent lamp numbers: 327, 328, 330, 345, 350, 376, 377, 380, 381, 382, 385, 387, and 7341

Quantity SAVE

| Part No. | Cross Ref. No. | Color     | Nominal Voltage | Forward Current (mA) typ. | Intensity (mcd) typ. | Wavelength (nm) | Pricing |        |        |
|----------|----------------|-----------|-----------------|---------------------------|----------------------|-----------------|---------|--------|--------|
|          |                |           |                 |                           |                      |                 | 1       | 10     | 100    |
| 392674   | 585-1213       | Ultra Red | 14              | 20                        | 280                  | 625             | \$5.79  | \$5.65 | \$4.48 |
| 392681   | 585-1313       | Green     | 14              | 14                        | 500                  | 525             | 5.49    | 5.35   | 4.25   |
| 392690   | 585-1413       | Yellow    | 14              | 20                        | 530                  | 588             | 5.49    | 4.67   | (3.50) |
| 392702   | 585-1215       | Red       | 28              | 4.5                       | 350                  | 625             | 5.79    | 4.92   | (3.69) |
| 392711   | 585-1315       | Green     | 28              | 4.5                       | 300                  | 525             | 5.49    | 5.35   | 4.25   |
| 392729   | 585-1415       | Yellow    | 28              | 4.5                       | 450                  | 588             | 5.49    | 4.67   | (3.50) |

A Jameco EXCLUSIVE



392690



#### Cluster-Based LED T3 - Miniature Bayonet (BA9s) - Non-Polarized

- Replaces incandescent lamp numbers: 44, 47, 313, 755, 1815, 1819, 1847, 1850, 1866, 1889, 1891, 1892, 1893, and 1895

| Part No. | Cross Ref. No. | Color  | Nominal Voltage | Forward Current (mA) typ. | Intensity (mcd) typ. | Wavelength (nm) | Pricing                   |        |        |
|----------|----------------|--------|-----------------|---------------------------|----------------------|-----------------|---------------------------|--------|--------|
|          |                |        |                 |                           |                      |                 | 1                         | 10     | 100    |
| 392551   | 585-5223       | Red    | 14              | 20                        | 7000                 | 630             | <del>\$12.19</del> \$9.45 | \$7.99 | (5.99) |
| 392569   | 585-5323       | Green  | 14              | 20                        | 6500                 | 525             | <del>\$12.19</del> 9.15   | 7.76   | (5.82) |
| 392585   | 585-5523       | Yellow | 14              | 20                        | 7000                 | 588             | <del>\$12.79</del> 11.15  | 9.45   | (7.09) |
| 392593   | 585-5225       | Red    | 28              | 15                        | 6500                 | 630             | 12.35                     | 11.85  | 10.39  |
| 392606   | 585-5325       | Green  | 28              | 15                        | 6000                 | 525             | <del>\$11.29</del> 9.45   | 8.00   | (6.00) |
| 392622   | 585-5525       | Yellow | 28              | 15                        | 6000                 | 588             | 12.95                     | 11.01  | (8.26) |
| 392632   | 585-5256       | Red    | 120VAC          | 5.5                       | 6500                 | 625             | 9.89                      | 9.64   | 8.31   |
| 392649   | 585-5356       | Green  | 120VAC          | 5.5                       | 7000                 | 525             | <del>\$9.65</del> 6.25    | 5.32   | (3.99) |
| 392665   | 585-5556       | Yellow | 120VAC          | 5.5                       | 6500                 | 590             | <del>\$11.15</del> 6.25   | 5.32   | (3.99) |



392569



#### Bayonet Based LED T3 Polarized

- Replaces incandescent lamp numbers: 44, 47, 313, 755, 757, 1815, 1819, 1847, 1850, 1866, 1889, 1891, 1892, 1893, and 1895

| Part No. | Cross Ref. No. | Color | Nominal Voltage | Forward Current (mA) typ. | Intensity (mcd) typ. | Wavelength (nm) | Pricing |        |        |
|----------|----------------|-------|-----------------|---------------------------|----------------------|-----------------|---------|--------|--------|
|          |                |       |                 |                           |                      |                 | 1       | 10     | 100    |
| 394476   | 585-4113       | Red   | 14              | 20                        | 550                  | 630             | \$7.85  | \$6.67 | (5.01) |
| 394492   | 585-4115       | Red   | 28              | 14                        | 350                  | 630             | 7.85    | 6.67   | (5.01) |



394476



♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product

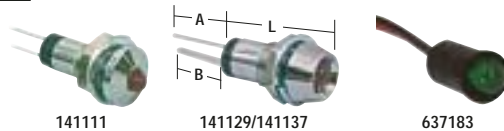
♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.

## LED Panel-Mount Indicators

- Easy panel installation
- Panel/status/instrument indicators

141111/141129/141137: Chrome housing



| Part No. | Cross Ref. No.       | LED Size | Color | Dimensions (in.) |     |     | Mounting Hole | Vf @ If    | Pricing |        |         |         |
|----------|----------------------|----------|-------|------------------|-----|-----|---------------|------------|---------|--------|---------|---------|
|          |                      |          |       | L                | A   | B   |               |            | 1       | 10     | 100     | 1000    |
| 141111   | L922SRD              | T1       | Red   | .56              | .34 | .25 | .23"          | 2V @ 20mA  | \$ .70  | \$ .63 | \$ .504 | \$ .378 |
| 141129   | L913RD               | T1       | Red   | .56              | .39 | .32 | .24"          | 2V @ 20mA  | 1.09    | .81    | .69     | .61     |
| 141137   | L917RD               | T1 3/4   | Red   | .70              | .55 | .47 | .31"          | 2V @ 20mA  | .89     | .79    | .71     | .55     |
| 637183   | UT2U1G-H113-R801-W05 | T1 3/4   | Green | .55              | 5.5 | 5.5 | .24"          | 12V @ 30mA | 1.29    | 1.05   | .87     | .76     |

## Incandescent Panel Mount Lamps

- 215782/215791/215774: wire length - 3.9" (100mm)
- 215749/215758/215766: wire length - 4.9" (125mm)
- 215714/215723/215732: solder terminals - 0.196" (5mm)



| Part No. | Cross Ref. No.    | Fig. | Voltage | Color  | Mounting Hole | 1      | 10     | 100    |
|----------|-------------------|------|---------|--------|---------------|--------|--------|--------|
| 215774   | R9-46B-W100-12V-R | 1    | 12      | Red    | 1/2" (13mm)   | \$1.79 | \$1.61 | \$1.20 |
| 215782   | R9-46B-W100-12V-Y | 1    | 12      | Yellow | 1/2" (13mm)   | 1.65   | 1.45   | 1.19   |
| 215791   | R9-46B-W100-12V-G | 1    | 12      | Green  | 1/2" (13mm)   | 1.79   | 1.61   | 1.20   |
| 215749   | R9-55B-W130-12V-R | 2    | 12      | Red    | 9/32" (7mm)   | 1.79   | 1.59   | 1.35   |
| 215758   | R9-55B-W130-12V-Y | 2    | 12      | Yellow | 9/32" (7mm)   | 1.65   | 1.45   | 1.19   |
| 215766   | R9-55B-W130-12V-G | 2    | 12      | Green  | 9/32" (7mm)   | 1.79   | 1.59   | 1.35   |
| 215714   | R9-71B-05-12V-R   | 3    | 12      | Red    | 5/8" (16mm)   | 1.79   | 1.61   | 1.37   |
| 215723   | R9-71B-05-12V-Y   | 3    | 12      | Yellow | 5/8" (16mm)   | 1.65   | 1.45   | 1.19   |
| 215732   | R9-71B-05-12V-G   | 3    | 12      | Green  | 5/8" (16mm)   | 1.79   | 1.61   | 1.20   |

## Electroluminescence Wires

Imagine the possibilities of transforming ordinary objects with high tech visual effects. Wrap these fluorescent wires around any objects such as musical instruments, models, science projects, and presentation boards. Super charge your projects with brilliant colors.

- Powered by 2 AA batteries
- Length: 4.5'

| Part No. | Product No. | Color | 1       | 10      | 25      |
|----------|-------------|-------|---------|---------|---------|
| 263484   | NWRB15      | Blue  | \$21.95 | \$20.95 | \$19.95 |
| 263505   | NWRG15      | Green | 21.95   | 20.95   | 19.95   |
| 263492   | NWRR15      | Red   | 21.95   | 20.95   | 19.95   |



## Neon Panel Mount Lamps

- Input voltage: 120V
- Mounting hole diameter: 5/8" (16mm)
- Solder terminals: 0.196" (5mm)

| Part No.       | Cross Ref. No.   | 1      | 10     | 100    |
|----------------|------------------|--------|--------|--------|
| 215803: Red    |                  |        |        |        |
| 215811: Yellow |                  |        |        |        |
| 215830: Green  |                  |        |        |        |
| 215803         | R9-71N-05-120V-R | \$1.79 | \$1.59 | \$1.35 |
| 215811         | R9-71N-05-120V-Y | 1.79   | 1.59   | 1.35   |
| 215830         | R9-71N-05-120V-G | 1.79   | 1.59   | 1.35   |

## Miniature Fluorescent Lamps

Add fluorescent color to your projects, computer case, car and other displays with these economical lights. Now you can easily and affordably mount these 4" light tubes to add cool cold-cathode effects and give your display a richer look and feel. Optional power supply below converts 12VDC input into 180V - 800V output needed by lights.

| Part No. | Prod. No. | Description  | 1      | 10     | 25     |
|----------|-----------|--------------|--------|--------|--------|
| 239610   | FLW1      | White light  | \$9.95 | \$8.95 | \$7.95 |
| 239572   | FLB1      | Blue light   | 9.95   | 8.46   | 6.35   |
| 239581   | FLBL1     | Black light  | 9.95   | 8.95   | 7.95   |
| 239628   | FLY1      | Yellow light | 9.95   | 8.95   | 7.95   |
| 239636   | FLPS1     | 12VDC PS     | 9.95   | 8.95   | 7.95   |

## Jameco's Got The Docs

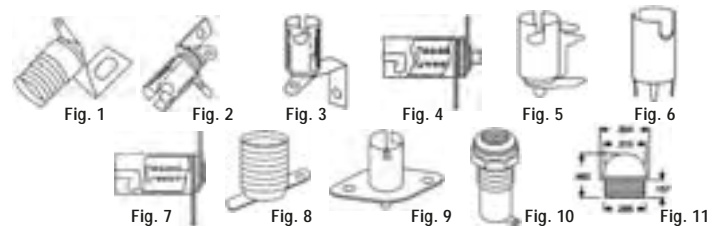
We offer free technical documents for most of the products we carry. Find them easily on the product specification pages at [www.Jameco.com](http://www.Jameco.com).



## Lamp Sockets and Lens

### Sockets

| Part No. | Product No. | Fig. | Description                        | 1      | 10     | 100    |
|----------|-------------|------|------------------------------------|--------|--------|--------|
| 394257   | 35LH002     | 1    | T3 1/4 screw-mini, non-insulated   | \$ .61 | \$ .48 | \$ .47 |
| 394265   | 35LH003     | 2    | T3 1/4 bayonet-mini, insulated     | 2.05   | 1.79   | 1.71   |
| 394273   | 35LH004     | 3    | T3 1/4 bayonet-mini, non insulated | 2.25   | 1.75   | 1.71   |
| 394281   | 35LH005     | 4    | T3 1/4 bayonet-mini, insulated     | 2.25   | 1.77   | 1.71   |
| 394290   | 35LH006     | 5    | T3 1/4 bayonet-mini, insulated     | 2.35   | 1.86   | 1.81   |
| 394302   | 35LH007     | 6    | T3 1/4 bayonet-mini, insulated     | 1.95   | 1.59   | 1.51   |
| 394311   | 35LH008     | 7    | T3 1/4 bayonet-mini, insulated     | 1.95   | 1.60   | 1.51   |
| 394329   | 35LH010     | 8    | T3 1/4 screw-mini, insulated       | .53    | .42    | .40    |
| 394337   | 35LH011     | 9    | T3 1/4 bayonet-mini, insulated     | 1.99   | 1.58   | 1.51   |
| 394345   | 352-0100    | 10   | T1 1/4 midjet-screw, insulated     | 1.18   | 1.00   | .90    |



### Lens



- Use with socket, P/N 394345, left

| Part No. | Product No. | Fig. | Description    | 1      | 10      | 100     |
|----------|-------------|------|----------------|--------|---------|---------|
| 394370   | 351-0103    | 11   | Clear, plastic | \$ .37 | \$ .254 | \$ .238 |

## CdS Photocells

- Applications include: auto-focus lenses, exposure meters, contrast controls for TVs, dimmer or light switches, flame detectors, electronic toys, street lamp switches, optocouplers
- Generate variable signal based on detection of light levels • Soldering: 230°C for 3 seconds • Operating temperature: -30°C to +70°C • Cadmium Sulfide (CdS)

| Part No. | Cross Ref. No. | Rating |     | Resistance (Ω) |       | Size (inches) |      | Lead Spacing (inches) | Lead Length (inches) | Pricing |        |        |        |
|----------|----------------|--------|-----|----------------|-------|---------------|------|-----------------------|----------------------|---------|--------|--------|--------|
|          |                | Vp     | mW  | Dark           | Light | A             | B    |                       |                      | 1       | 10     | 100    | 1000   |
|          |                |        |     |                |       |               |      |                       |                      |         |        |        |        |
| 136055   | CDS008         | 50     | 200 | 100k           | 10k   | 0.40          | 0.44 | 0.30                  | 1.50                 | \$ .89  | \$ .80 | \$ .69 | \$ .52 |
| 202366   | CDS0029001     | 150    | 90  | 300k           | 4k    | 0.14          | 0.17 | 0.10                  | 1.02                 | 1.69    | 1.52   | 1.22   | .99    |
| 120310   | CDS0029004     | 150    | 90  | 2M             | 27k   | 0.14          | 0.17 | 0.10                  | 1.44                 | 1.45    | 1.20   | 1.09   | .99    |
| 202391   | CDS0029203     | 150    | 90  | 10M            | 5k    | 0.14          | 0.17 | 0.10                  | 1.02                 | 1.49    | 1.35   | 1.19   | 1.09   |
| 202382   | CDS0029008     | 150    | 90  | 20M            | 10k   | 0.14          | 0.17 | 0.10                  | 1.02                 | 1.49    | 1.34   | 1.21   | .99    |
| 202420   | CDS0018003     | 150    | 100 | 500k           | 16k   | 0.17          | 0.20 | 0.13                  | 1.02                 | .78     | .70    | .64    | .58    |
| 202403   | CDS0018001     | 150    | 100 | 200k           | 3k    | 0.17          | 0.20 | 0.13                  | 1.02                 | 1.49    | 1.35   | 1.19   | 1.09   |
| 202411   | CDS0018006     | 150    | 100 | 5M             | 80k   | 0.17          | 0.20 | 0.13                  | 1.02                 | .69     | .65    | .59    | .55    |
| 202438   | CDS0037004     | 200    | 150 | 500k           | 15k   | 0.25          | 0.29 | 0.20                  | 1.02                 | 1.49    | 1.34   | 1.07   | .96    |
| 120301   | CDS0037001     | 200    | 150 | 300k           | 3k    | 0.25          | 0.29 | 0.20                  | 1.02                 | 1.79    | 1.59   | 1.45   | 1.29   |
| 202299   | CDS0045001     | 350    | 400 | 300k           | 8k    | 0.37          | 0.43 | 0.30                  | 1.44                 | 1.79    | 1.59   | 1.45   | 1.29   |
| 202454   | CDS0045003     | 350    | 400 | 1M             | 12k   | 0.37          | 0.43 | 0.30                  | 1.44                 | 1.69    | 1.52   | 1.22   | .91    |

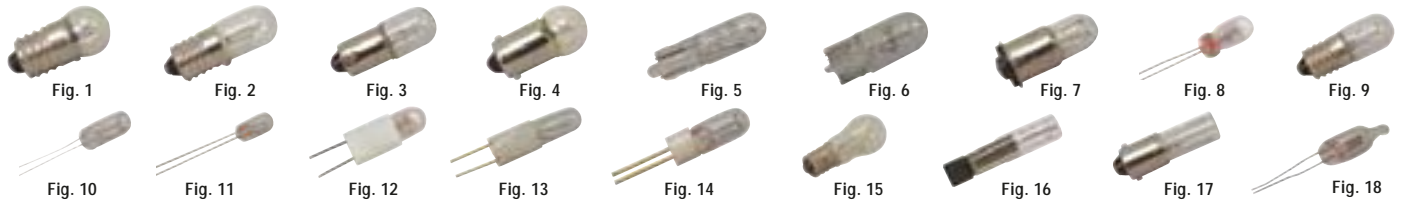
 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



# Incandescent & Neon Lamps

More Lamps at [www.Jameco.com/Prod/Lamps](http://www.Jameco.com/Prod/Lamps)

Color Code Legend  
New Sale Lower\$ QtySave



## Incandescent Lamps

Quantity SAVE

| Part No. | Cross Ref. No. | Fig. | Description              | Volts | MSCP | Pricing |         |         |         |
|----------|----------------|------|--------------------------|-------|------|---------|---------|---------|---------|
|          |                |      |                          |       |      | 1       | 5       | 10      | 100     |
| 209382   | 13 R           | 1    | G3 1/2 miniature screw   | 3.7   | .98  | \$ .79  | \$ .75  | \$ .69  | \$ .59  |
| 209390   | 14             | 1    | G3 1/2 miniature screw   | 2.47  | .50  | \$ .55  | \$ .46  | \$ .414 | \$ .331 |
| 209402   | 40             | 2    | T3 1/4 miniature screw   | 6.3   | .50  | \$ .35  | \$ .21  | \$ .189 | \$ .151 |
| 209411   | 44             | 3    | T3 1/4 miniature bayonet | 6.3   | .90  | \$ .21  | \$ .19  | \$ .152 | \$ .114 |
| 209429   | 46             | 2    | T3 1/4 miniature screw   | 6.3   | .90  | \$ .45  | \$ .37  | \$ .333 | \$ .283 |
| 209437   | 47             | 3    | T3 1/4 miniature bayonet | 6.3   | .50  | \$ .21  | \$ .19  | \$ .152 | \$ .114 |
| 209453   | 53             | 4    | G3 1/2 miniature bayonet | 14.4  | 1.0  | \$ .59  | \$ .55  | \$ .50  | \$ .40  |
| 209461   | 73             | 5    | T1 3/4 wedge             | 14.0  | .30  | \$ .26  | \$ .24  | \$ .209 | \$ .182 |
| 209470   | 85             | 5    | T1 3/4 wedge             | 28.0  | .30  | \$ .27  | \$ .24  | \$ .21  | \$ .158 |
| 209488   | 86             | 5    | T1 3/4 wedge             | 6.3   | .40  | \$ .20  | \$ .187 | \$ .174 | \$ .145 |
| 209541   | 259            | 6    | T3 1/4 wedge             | 6.3   | .65  | \$ .27  | \$ .247 | \$ .223 | \$ .176 |
| 209550   | 313            | 3    | T3 1/4 miniature bayonet | 28.0  | 3.5  | \$ .23  | \$ .21  | \$ .198 | \$ .149 |
| 209701   | 387            | 7    | T1 3/4 midget flange     | 28.0  | .30  | \$ .37  | \$ .27  | \$ .243 | \$ .228 |
| 209710   | 683            | 8    | T1 wire terminal         | 5.0   | .05  | \$ .54  | \$ .486 | \$ .389 | \$ .292 |
| 209779   | 715            | 8    | T1 wire terminal         | 5.0   | .15  | \$ .91  | \$ .82  | \$ .70  | \$ .525 |
| 209787   | 755            | 3    | T3 1/4 miniature bayonet | 6.3   | .33  | \$ .49  | \$ .25  | \$ .225 | \$ .21  |
| 209795   | 756            | 3    | T3 1/4 miniature bayonet | 14.0  | .31  | \$ .74  | \$ .68  | \$ .61  | \$ .49  |
| 209841   | 1816           | 3    | T3 1/4 miniature bayonet | 13.0  | 3.0  | \$ .24  | \$ .22  | \$ .208 | \$ .156 |
| 209859   | 1818           | 3    | T3 1/4 miniature bayonet | 24.0  | 3.3  | \$ .81  | \$ .78  | \$ .75  | \$ .56  |
| 209867   | 1819           | 3    | T3 1/4 miniature bayonet | 28.0  | .34  | \$ .23  | \$ .21  | \$ .198 | \$ .149 |
| 209875   | 1820           | 3    | T3 1/4 miniature bayonet | 28.0  | 1.6  | \$ .30  | \$ .28  | \$ .26  | \$ .195 |
| 209883   | 1821           | 9    | T3 1/4 screw             | 28.0  | 3.4  | \$ .99  | \$ .89  | \$ .79  | \$ .59  |
| 209921   | 1847           | 3    | T3 1/4 miniature bayonet | 6.3   | .38  | \$ .55  | \$ .49  | \$ .36  | \$ .27  |

## Incandescent Lamps (Continued)

Quantity SAVE

| Part No. | Cross Ref. No. | Fig. | Description               | Volts | MSCP | Pricing |         |         |         |
|----------|----------------|------|---------------------------|-------|------|---------|---------|---------|---------|
|          |                |      |                           |       |      | 1       | 5       | 10      | 100     |
| 209947   | 1864           | 3    | T3 1/4 miniature bayonet  | 28.0  | 3.0  | \$ .55  | \$ .50  | \$ .40  | \$ .30  |
| 141073   | 2182           | 10   | T1 3/4 wire terminal      | 14.0  | .30  | \$ .49  | \$ .44  | \$ .39  | \$ .34  |
| 141065   | 2200           | 10   | T1 3/4 wire terminal      | 5.0   | .05  | \$ .59  | \$ .54  | \$ .49  | \$ .44  |
| 141057   | 6833           | 11   | T 3/4 wire terminal       | 5.0   | .05  | \$ 1.25 | \$ 1.15 | \$ 1.07 | \$ .80  |
| 209998   | 7219           | 8    | T1 wire terminal          | 12.0  | .15  | \$ .35  | \$ .29  | \$ .25  | \$ .19  |
| 210008   | 7328           | 12   | T1 3/4 bi-pin             | 6.0   | .60  | \$ .89  | \$ .79  | \$ .69  | \$ .59  |
| 141006   | 7361           | 12   | T1 3/4 bi-pin             | 5.0   | .05  | \$ .99  | \$ .89  | \$ .79  | \$ .69  |
| 210032   | 7382           | 12   | T1 3/4 bi-pin             | 14.0  | .30  | \$ .61  | \$ .49  | \$ .44  | \$ .33  |
| 210041   | 7387           | 12   | T1 3/4 bi-pin             | 28.0  | .30  | \$ .85  | \$ .77  | \$ .62  | \$ .465 |
| 210059   | 7632           | 13   | T1 1/4 bi-pin             | 28.0  | .32  | \$ 1.27 | \$ 1.14 | \$ .91  | \$ .69  |
| 210075   | 7715           | 14   | T1 bi-pin                 | 5.0   | .15  | \$ 1.19 | \$ 1.07 | \$ .86  | \$ .64  |
| 309673   | 6S6            | 15   | S6 candelabra             | 120   | —    | \$ .84  | \$ .80  | \$ .76  | \$ .57  |
| 210180   | 28PSB          | 16   | T2 tel. slide base type 5 | 28.0  | 1600 | \$ .69  | \$ .63  | \$ .497 | \$ .373 |
| 210092   | 120MB          | 17   | T2 miniature bayonet      | 120.0 | 1200 | \$ .86  | \$ .81  | \$ .74  | \$ .61  |
| 210104   | 120PSB         | 16   | T2 tel. slide base type 5 | 120.0 | 1200 | \$ .65  | \$ .59  | \$ .50  | \$ .486 |

## Neon Lamps

Lower \$\$\$

| Part No. | Cross Ref. No. | Fig. | Description        | Voltage | Pricing |         |         |         |
|----------|----------------|------|--------------------|---------|---------|---------|---------|---------|
|          |                |      |                    |         | 1       | 5       | 10      | 100     |
| 27351    | A1A (NE-2)     | 18   | Wire terminal .6mA | 65-120  | \$ .42  | \$ .35  | \$ .31  | \$ .26  |
| 210315   | C2A (NE-2H)    | 18   | Wire terminal      | 65-120  | \$ .33  | \$ .297 | \$ .238 | \$ .179 |

# Electrolytic Capacitors

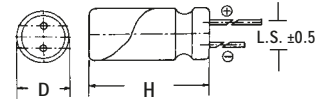
JAMECO ValuePro

A Jameco EXCLUSIVE

## Aluminum Radial-Lead Electrolytic Capacitors (±20%)



|                           |              |                                     |
|---------------------------|--------------|-------------------------------------|
| Leakage Current<br>(20°C) | After 1 min. | 0.03CV or 4μA, whichever is greater |
|                           | After 2 min. | 0.01CV or 3μA, whichever is greater |



† CROSS REFERENCES: Elna: RC2/RE2; IC: RAR/RSS; Marcon: SEM/SSM; Nichicon: LB/VX/USA/SR/SA; Rubycon: MS7/TWSS; Sprague: 501D/513D; UCC: SME/SRE/SRA/SRG; Panasonic: KA/KS/SU

## 85°C – General Purpose

Blue Part No. = Limited Quantity Available

\* Prepackaged: please order in increments of 10

\* Prepackaged: please order in increments of 10

| Part No. | Cross Ref. No.† | Value (µF) | Voltage | Size (mm) D x H x L.S. | Pricing |         |         |         |
|----------|-----------------|------------|---------|------------------------|---------|---------|---------|---------|
|          |                 |            |         |                        | 1       | 10      | 100     | 500     |
| 609043   | UVR2A0R1MDD     | 0.1        | 100V    | 5 x 11 x 2             | *       | \$ .098 | \$ .081 | \$ .055 |
| 609078   | UVR2AR22MDD     | 0.22       | 100V    | 5 x 11 x 2             | *       | \$ .095 | \$ .078 | \$ .048 |
| 609086   | UVR2AR33MDD     | 0.33       | 100V    | 5 x 11 x 2             | *       | \$ .095 | \$ .078 | \$ .048 |
| 330465   | RA0.47/50       | 0.47       | 50V     | 5 x 11 x 2             | *       | \$ .045 | \$ .039 | \$ .03  |
| 609094   | UVR2AR47MDD     | 0.47       | 100V    | 5 x 11 x 2             | *       | \$ .095 | \$ .078 | \$ .048 |
| 330431   | RA1/25          | 1          | 25V     | 5 x 11 x 2             | *       | \$ .045 | \$ .039 | \$ .03  |
| 94161    | 5R1/50          | 1          | 50V     | 4 x 5 x 1.5            | *       | \$ .12  | \$ .08  | \$ .05  |
| 29832    | R1/50           | 1          | 50V     | 5 x 11 x 2             | *       | \$ .063 | \$ .053 | \$ .042 |
| 609035   | UVR2A010MDD     | 1          | 100V    | 5 x 11 x 2             | *       | \$ .098 | \$ .082 | \$ .055 |
| 330544   | RA1/160         | 1          | 160V    | 6 x 11 x 2.5           | *       | \$ .047 | \$ .04  | \$ .03  |
| 330588   | RA1/250         | 1          | 250V    | 6 x 11 x 2.5           | *       | \$ .065 | \$ .06  | \$ .053 |
| 93730    | R2.2/50         | 2.2        | 50V     | 5 x 11 x 2             | *       | \$ .038 | \$ .03  | \$ .023 |
| 199021   | R2.2J/100       | 2.2        | 100V    | 5 x 11 x 2             | *       | \$ .035 | \$ .03  | \$ .025 |
| 609123   | UVR2C2R2MED     | 2.2        | 160V    | 6.3 x 11 x 2.5         | *       | \$ .126 | \$ .08  | \$ .056 |
| 609182   | UVR2E2R2MED     | 2.2        | 250V    | 6.3 x 11 x 2.5         | *       | \$ .22  | \$ .141 | \$ .097 |
| 609254   | UVR2V2R2MPD     | 2.2        | 350V    | 8 x 11.5 x 3.5         | *       | \$ .27  | \$ .182 | \$ .128 |
| 609211   | UVR2G2R2MPD     | 2.2        | 400V    | 10 x 12.5 x 5          | *       | \$ .30  | \$ .213 | \$ .152 |
| 609051   | UVR2A3R3MDD     | 3.3        | 100V    | 5 x 11 x 2             | *       | \$ .095 | \$ .078 | \$ .058 |
| 609191   | UVR2E3R3MPD     | 3.3        | 250V    | 8 x 11.5 x 3.5         | *       | \$ .25  | \$ .166 | \$ .12  |
| 609271   | UVR2V3R3MPD     | 3.3        | 350V    | 10 x 12.5 x 5          | *       | \$ .30  | \$ .229 | \$ .16  |
| 330448   | RA4.7/25        | 4.7        | 25V     | 5 x 11 x 2             | *       | \$ .045 | \$ .039 | \$ .03  |
| 31002    | R4.7/50         | 4.7        | 50V     | 6 x 11 x 2             | *       | \$ .042 | \$ .037 | \$ .029 |

| Part No. | Cross Ref. No.† | Value (µF) | Voltage | Size (mm) D x H x L.S. | Pricing |         |         |         |
|----------|-----------------|------------|---------|------------------------|---------|---------|---------|---------|
|          |                 |            |         |                        | 1       | 10      | 100     | 500     |
| 609060   | UVR2A4R7MDD     | 4.7        | 100V    | 5 x 11 x 2             | *       | \$ .103 | \$ .088 | \$ .058 |
| 609158   | UVR2C4R7MED     | 4.7        | 160V    | 6.3 x 11 x 2.5         | *       | \$ .119 | \$ .08  | \$ .048 |
| 330596   | RA4.7/250       | 4.7        | 250V    | 8 x 11 x 3.5           | *       | \$ .112 | \$ .094 | \$ .083 |
| 609297   | UVR2V4R7MPD     | 4.7        | 350V    | 10 x 12.5 x 5          | *       | \$ .30  | \$ .229 | \$ .16  |
| 609220   | UVR2G4R7MPD     | 4.7        | 400V    | 10 x 16 x 5            | *       | \$ .37  | \$ .269 | \$ .196 |
| 198838   | R10J/16         | 10         | 16V     | 5 x 11 x 2             | *       | \$ .045 | \$ .03  | \$ .025 |
| 94212    | 5R10/25         | 10         | 25V     | 4 x 5 x 1.5            | *       | \$ .13  | \$ .08  | \$ .05  |
| 94220    | 5R10/35         | 10         | 35V     | 5 x 5 x 2              | *       | \$ .09  | \$ .07  | \$ .065 |
| 94370    | 7R10/35         | 10         | 35V     | 5 x 7 x 2              | *       | \$ .11  | \$ .06  | \$ .04  |
| 29893    | R10/50          | 10         | 50V     | 5 x 11 x 2             | *       | \$ .067 | \$ .055 | \$ .045 |
| 330482   | RA10/63         | 10         | 63V     | 5 x 11 x 2             | *       | \$ .056 | \$ .047 | \$ .038 |
| 199049   | R10J/100        | 10         | 100V    | 6 x 11 x 2.5           | *       | \$ .07  | \$ .06  | \$ .05  |
| 330552   | RA10/160        | 10         | 160V    | 8 x 11 x 3.5           | *       | \$ .122 | \$ .104 | \$ .078 |
| 330608   | RA10/250        | 10         | 250V    | 10 x 15 x 5            | *       | \$ .16  | \$ .133 | \$ .114 |
| 330632   | RA10/350        | 10         | 350V    | 10 x 20 x 5            | *       | \$ .25  | \$ .213 | \$ .17  |
| 609203   | UVR2G100MHD     | 10         | 400V    | 12.5 x 20 x 5          | *       | \$ .45  | \$ .34  | \$ .248 |
| 330641   | RA10/450        | 10         | 450V    | 13 x 21 x 5            | *       | \$ .46  | \$ .414 | \$ .333 |
| 198847   | R22J/16         | 22         | 16V     | 5 x 11 x 2             | *       | \$ .04  | \$ .035 | \$ .026 |
| 189918   | R22J/25         | 22         | 25V     | 5 x 11 x 2             | *       | \$ .032 | \$ .027 | \$ .023 |
| 198942   | R22J/35         | 22         | 35V     | 5 x 11 x 2             | *       | \$ .029 | \$ .026 | \$ .023 |
| 93738    | R22/50          | 22         | 50V     | 5 x 11 x 2             | *       | \$ .068 | \$ .058 | \$ .043 |
| 608972   | UVR1J220MDD     | 22         | 63V     | 5 x 11 x 2             | *       | \$ .111 | \$ .072 | \$ .048 |

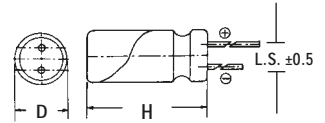
R RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



## Aluminum Radial-Lead Electrolytic Capacitors (±20%)

|                           |              |                                     |
|---------------------------|--------------|-------------------------------------|
| Leakage Current<br>(20°C) | After 1 min. | 0.03CV or 4µA, whichever is greater |
|                           | After 2 min. | 0.01CV or 3µA, whichever is greater |

† CROSS REFERENCES: Elna: RC2/RE2; IC: RAR/RSS; Marcon: SEM/SSM; Nichicon: LB/VX/USA/SR/SA;  
 Rubycon: MS7/TWSS; Sprague: 501D/513D; UCC: SME/SRE/SRA/SRG; Panasonic: KA/KS/SU



### 85°C – General Purpose (Continued)

**Quantity SAVE**

Blue Part No. = Limited Quantity Available

\* Prepackaged: please order in increments of 10

| Part No. | Cross Ref. No. † | Value (µF) | Voltage | Size (mm)<br>D x H x L.S. | Pricing |       |       |       |
|----------|------------------|------------|---------|---------------------------|---------|-------|-------|-------|
|          |                  |            |         |                           | 1       | 10    | 100   | 500   |
| 199056   | R22J/100         | 22         | 100V    | 6 x 11 x 2.5              | *       | \$.15 | \$.09 | \$.06 |
| 609107   | UVR2C220MPD      | 22         | 160V    | 10 x 16 x 5               | .30     | .213  | .16   | .112  |
| 609166   | UVR2E220MHD      | 22         | 250V    | 12.5 x 20 x 5             | .48     | .356  | .256  | .186  |
| 609246   | UVR2V220MHD      | 22         | 350V    | 12.5 x 25 x 5             | .49     | .371  | .28   | .203  |
| 330660   | RA22/450         | 22         | 450V    | 16 x 26 x 7.5             | .58     | .517  | .456  | .39   |
| 198926   | R33J/25          | 33         | 25V     | 5 x 11 x 2                | *       | .05   | .039  | .028  |
| 609027   | UVR1V330MDD      | 33         | 35V     | 5 x 11 x 2                | *       | .103  | .085  | .058  |
| 93747    | R33/50           | 33         | 50V     | 6 x 11 x 2.5              | *       | .055  | .05   | .045  |
| 608999   | UVR1J330MED      | 33         | 63V     | 6.3 x 11 x 2.5            | *       | .126  | .088  | .064  |
| 609131   | UVR2C330MPD      | 33         | 160V    | 10 x 20 x 5               | .45     | .34   | .248  | .178  |
| 609262   | UVR2V330MHD      | 33         | 350V    | 16 x 25 x 7.5             | .85     | .63   | .472  | .348  |
| 330667   | RA33/450         | 33         | 450V    | 16 x 30 x 7.5             | 1.09    | .97   | .86   | .62   |
| 198863   | R47J/16          | 47         | 16V     | 5 x 11 x 2                | *       | .04   | .032  | .023  |
| 198952   | R47J/35          | 47         | 35V     | 5 x 11 x 2                | *       | .05   | .04   | .03   |
| 31116    | R47/50           | 47         | 50V     | 6 x 11 x 2.5              | *       | .067  | .056  | .05   |
| 330499   | RA47/63          | 47         | 63V     | 8 x 12 x 3.5              | .24     | .164  | .119  | .084  |
| 199073   | R47J/100         | 47         | 100V    | 10 x 12 x 5               | *       | .15   | .13   | .10   |
| 330561   | RA47/160S        | 47         | 160V    | 10 x 20 x 5               | .53     | .399  | .30   | .223  |
| 330616   | RA47/250         | 47         | 250V    | 13 x 25 x 5               | .57     | .508  | .447  | .388  |
| 609289   | UVR2V470MHD      | 47         | 350V    | 16 x 35.5 x 7.5           | 1.37    | 1.04  | .78   | .57   |
| 330676   | RA47/450         | 47         | 450V    | 18 x 30 x 7.5             | 1.75    | 1.21  | .92   | .70   |
| 608809   | UVR0J101MDD      | 100        | 6.3V    | 5 x 11 x 2                | *       | .087  | .075  | .048  |
| 207813   | R100/10          | 100        | 10V     | 5 x 11 x 2                | *       | .08   | .06   | .045  |
| 330422   | RA100/16         | 100        | 16V     | 5 x 11 x 2                | *       | .056  | .055  | .048  |
| 94289    | 5R100/16         | 100        | 16V     | 6 x 5 x 2.5               | *       | .15   | .12   | .09   |
| 94431    | 7R100/16         | 100        | 16V     | 6 x 7 x 2.5               | *       | .15   | .12   | .09   |
| 93763    | R100/25          | 100        | 25V     | 6 x 11 x 2.5              | *       | .078  | .056  | .039  |
| 198970   | R100J/35         | 100        | 35V     | 6 x 11 x 2.5              | *       | .07   | .06   | .05   |
| 29964    | R100/50          | 100        | 50V     | 8 x 11 x 3.5              | *       | .078  | .067  | .056  |
| 330502   | RA100/63         | 100        | 63V     | 8 x 14 x 3.5              | *       | .122  | .104  | .078  |
| 330528   | RA100/100        | 100        | 100V    | 10 x 20 x 5               | .33     | .282  | .266  | .19   |
| 330579   | RA100/160S       | 100        | 160V    | 13 x 16.25 x 26.42        | .48     | .432  | .346  | .26   |
| 330625   | RA100/250        | 100        | 250V    | 16 x 30 x 7.5             | 1.25    | 1.09  | .95   | .68   |
| 609238   | UVR2V101MHD      | 100        | 350V    | 18 x 40 x 7.5             | 1.41    | 1.07  | .83   | .61   |
| 330683   | RA100/450        | 100        | 450V    | 22 x 42 x 10.5            | 3.39    | 3.03  | 2.08  | 1.87  |
| 608833   | UVR0J221MDD      | 220        | 6.3V    | 5 x 11 x 2                | *       | .119  | .08   | .056  |
| 135124   | 7R220/10         | 220        | 10V     | 6 x 7 x 2.5               | .26     | .23   | .20   | .15   |
| 198871   | R220J/16         | 220        | 16V     | 6 x 11 x 2.5              | *       | .11   | .07   | .06   |
| 30498    | R220/25          | 220        | 25V     | 8 x 11 x 3.5              | *       | .08   | .06   | .05   |
| 93772    | R220/35          | 220        | 35V     | 8 x 12 x 5                | *       | .09   | .08   | .07   |
| 93780    | R220/50          | 220        | 50V     | 10 x 15 x 5               | *       | .167  | .133  | .10   |
| 330510   | RA220/63         | 220        | 63V     | 10 x 17 x 5               | .27     | .235  | .188  | .141  |
| 609115   | UVR2C221MHD      | 220        | 160V    | 16 x 35.5 x 7.5           | 1.29    | .98   | .73   | .527  |
| 609174   | UVR2E221MRD      | 220        | 250V    | 20 x 40 x 10              | 2.69    | 2.23  | 1.72  | 1.29  |
| 608868   | UVR0J331MED      | 330        | 6.3V    | 6.3 x 11 x 2.5            | *       | .126  | .088  | .064  |
| 608921   | UVR1A331MED      | 330        | 10V     | 6.3 x 11 x 2.5            | .23     | .15   | .104  | .072  |
| 198891   | R330J/16         | 330        | 16V     | 8 x 11 x 3.5              | *       | .132  | .066  | .056  |

Blue Part No. = Limited Quantity Available



\* Prepackaged: please order in increments of 10

| Part No. | Cross Ref. No. † | Value (µF) | Voltage | Size (mm)<br>D x H x L.S. | Pricing |        |       |        |
|----------|------------------|------------|---------|---------------------------|---------|--------|-------|--------|
|          |                  |            |         |                           | 1       | 10     | 100   | 500    |
| 93798    | R330/25          | 330        | 25V     | 8 x 12 x 3.5              | *       | \$.144 | \$.10 | \$.089 |
| 198977   | R330J/35         | 330        | 35V     | 10 x 12 x 5               | .20     | .18    | .14   | .10    |
| 330472   | RA330/50         | 330        | 50V     | 10 x 20 x 5               | .26     | .235   | .188  | .141   |
| 609001   | UVR1J331MPD      | 330        | 63V     | 10 x 20 x 5               | .50     | .371   | .28   | .203   |
| 93811    | R470/16          | 470        | 16V     | 8 x 11 x 3.5              | *       | .11    | .103  | .099   |
| 31182    | R470/25          | 470        | 25V     | 8 x 14 x 5                | *       | .133   | .111  | .083   |
| 93819    | R470/35          | 470        | 35V     | 10 x 16 x 5               | .19     | .17    | .15   | .13    |
| 93827    | R470/50          | 470        | 50V     | 10 x 20 x 5               | .32     | .31    | .21   | .144   |
| 158465   | R470B63          | 470        | 63V     | 12 x 20 x 5               | .39     | .366   | .326  | .271   |
| 609019   | UVR1J471MHD      | 470        | 63V     | 12.5 x 20 x 5             | .69     | .514   | .384  | .284   |
| 199101   | R470J/100        | 470        | 100V    | 16 x 25 x 7.5             | .81     | .73    | .58   | .435   |
| 609140   | UVR2C471MRD      | 470        | 160V    | 22 x 40 x 10              | 2.55    | 1.91   | 1.46  | 1.09   |
| 330456   | RA680/25S        | 680        | 25V     | 8 x 16 x 3.5              | .97     | .87    | .70   | .525   |
| 330392   | RA1000/10        | 1000       | 10V     | 8 x 14 x 3.5              | *       | .132   | .114  | .091   |
| 30016    | R1000/16         | 1000       | 16V     | 10 x 16 x 5               | *       | .16    | .14   | .12    |
| 93835    | R1000/25         | 1000       | 25V     | 10 x 20 x 5               | .28     | .25    | .23   | .18    |
| 286045   | Q399L            | 1000       | 35V     | 12 x 20 x 5               | .50     | .46    | .41   | .33    |
| 93843    | R1000/50         | 1000       | 50V     | 13 x 25 x 5               | .58     | .51    | .455  | .38    |
| 608964   | UVR1J102MHD      | 1000       | 63V     | 16 x 25 x 7.5             | 1.11    | .84    | .63   | .454   |
| 199111   | R1000J/100       | 1000       | 100V    | 18 x 40 x 7.5             | 2.29    | 2.06   | 1.65  | 1.24   |
| 608841   | UVR0J222MPD      | 2200       | 6.3V    | 10 x 20 x 5               | .41     | .316   | .224  | .162   |
| 608913   | UVR1A222MPD      | 2200       | 10V     | 10 x 20 x 5               | .45     | .332   | .248  | .178   |
| 133146   | R2200/16         | 2200       | 16V     | 10 x 20 x 5               | .36     | .31    | .267  | .244   |
| 30535    | R2200/25         | 2200       | 25V     | 13 x 21 x 5               | .61     | .545   | .444  | .333   |
| 198986   | R2200J/35        | 2200       | 35V     | 16 x 25 x 7.5             | 1.39    | 1.25   | .99   | .74    |
| 608956   | UVR1H222MHD      | 2200       | 50V     | 16 x 35.5 x 7.5           | 1.55    | 1.14   | .87   | .62    |
| 608981   | UVR1J222MHD      | 2200       | 63V     | 18 x 35.5 x 7.5           | 1.49    | 1.14   | .87   | .65    |
| 198897   | R3300J/16        | 3300       | 16V     | 12 x 25 x 5               | .49     | .39    | .33   | .29    |
| 30892    | R3300/25         | 3300       | 25V     | 13 x 29 x 5               | .79     | .72    | .545  | .49    |
| 198994   | R3300J/35        | 3300       | 35V     | 16 x 35 x 7.5             | .87     | .77    | .67   | .57    |
| 199013   | R3300J/50        | 3300       | 50V     | 18 x 35 x 7.5             | 2.15    | 1.94   | 1.54  | 1.16   |
| 608876   | UVR0J472MHD      | 4700       | 6.3V    | 12.5 x 20 x 5             | .72     | .545   | .408  | .30    |
| 608930   | UVR1A472MHD      | 4700       | 10V     | 12.5 x 25 x 5             | .87     | .65    | .488  | .348   |
| 198901   | R4700J/16        | 4700       | 16V     | 16 x 25 x 7.5             | .79     | .71    | .57   | .43    |
| 93851    | R4700/25         | 4700       | 25V     | 16 x 31 x 7.5             | 1.10    | .94    | .78   | .61    |
| 199005   | R4700J/35        | 4700       | 35V     | 18 x 35 x 7.5             | 1.15    | 1.03   | .82   | .61    |
| 163302   | R4700/50         | 4700       | 50V     | 22 x 42 x 10              | 2.25    | 1.99   | 1.67  | 1.45   |
| 608884   | UVR0J682MHD      | 6800       | 6.3V    | 12.5 x 25 x 5             | .92     | .70    | .528  | .381   |
| 31511    | R6800/16         | 6800       | 16V     | 16 x 26 x 7.5             | .97     | .88    | .70   | .55    |
| 198934   | R6800J/25        | 6800       | 25V     | 18 x 35 x 7.5             | 2.05    | 1.96   | 1.49  | 1.15   |
| 608817   | UVR0J103MHD      | 10,000     | 6.3V    | 16 x 25 x 7.5             | 1.30    | .98    | .74   | .531   |
| 608892   | UVR1A103MHD      | 10,000     | 10V     | 16 x 35.5 x 7.5           | 1.48    | 1.13   | .86   | .62    |
| 608948   | UVR1C103MHD      | 10,000     | 16V     | 18 x 35.5 x 7.5           | 1.59    | 1.18   | .90   | .64    |
| 608825   | UVR0J153MHD      | 15,000     | 6.3V    | 16 x 35.5 x 7.5           | 1.55    | 1.15   | .87   | .62    |
| 608905   | UVR1A153MHD      | 15,000     | 10V     | 18 x 35 x 7.5             | 1.59    | 1.19   | .90   | .64    |
| 608850   | UVR0J223MHD      | 22,000     | 6.3V    | 18 x 40 x 7.5             | 1.59    | 1.19   | .91   | .68    |

### 105°C – HT Type General Purpose

|        |             |      |      |            |       |        |        |        |
|--------|-------------|------|------|------------|-------|--------|--------|--------|
| 609545 | UVZ1H0R1MDD | 0.1  | 50V  | 5 x 11 x 2 | \$.20 | \$.126 | \$.088 | \$.056 |
| 609617 | UVZ1HR22MDD | 0.22 | 50V  | 5 x 11 x 2 | .20   | .126   | .088   | .056   |
| 609625 | UVZ1HR33MDD | 0.33 | 50V  | 5 x 11 x 2 | .20   | .126   | .088   | .056   |
| 609633 | UVZ1HR47MDD | 0.47 | 50V  | 5 x 11 x 2 | .20   | .126   | .088   | .056   |
| 158481 | RO.47B100   | 0.47 | 100V | 5 x 11 x 2 | *     | .05    | .04    | .03    |
| 607831 | UPW1H010MDD | 1    | 50V  | 5 x 11 x 2 | *     | .119   | .088   | .072   |
| 330772 | RB1/50      | 1    | 50V  | 5 x 11 x 2 | *     | .056   | .046   | .036   |
| 608323 | UPW2A010MDD | 1    | 100V | 5 x 11 x 2 | .20   | .134   | .096   | .072   |
| 158490 | RTB100      | 1    | 100V | 5 x 11 x 2 | *     | .06    | .05    | .04    |

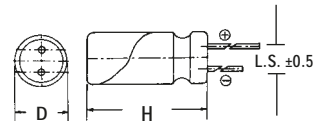
|        |             |     |      |                |       |       |        |        |
|--------|-------------|-----|------|----------------|-------|-------|--------|--------|
| 609895 | UVZ2D010MED | 1   | 200V | 6.3 x 11 x 2.5 | \$.23 | \$.16 | \$.114 | \$.079 |
| 609959 | UVZ2E010MED | 1   | 250V | 6.3 x 11 x 2.5 | .23   | .166  | .112   | .072   |
| 610028 | UVZ2W010MPD | 1   | 450V | 8 x 11.5 x 3.5 | .29   | .213  | .152   | .104   |
| 609561 | UVZ1H2R2MDD | 2.2 | 50V  | 5 x 11 x 2     | *     | .103  | .088   | .058   |
| 607937 | UPW1H2R2MDD | 2.2 | 50V  | 5 x 11 x 2     | *     | .119  | .088   | .072   |
| 609772 | UVZ2A2R2MDD | 2.2 | 100V | 5 x 11 x 2     | .20   | .126  | .088   | .056   |
| 608366 | UPW2A2R2MDD | 2.2 | 100V | 5 x 11 x 2     | .20   | .134  | .096   | .08    |
| 609844 | UVZ2C2R2MED | 2.2 | 160V | 6.3 x 11 x 2.5 | .23   | .158  | .112   | .072   |
| 609924 | UVZ2D2R2MED | 2.2 | 200V | 6.3 x 11 x 2.5 | .26   | .182  | .128   | .088   |

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

## Aluminum Radial-Lead Electrolytic Capacitors (±20%)

|                           |              |                                     |
|---------------------------|--------------|-------------------------------------|
| Leakage Current<br>(20°C) | After 1 min. | 0.03CV or 4µA, whichever is greater |
|                           | After 2 min. | 0.01CV or 3µA, whichever is greater |

† CROSS REFERENCES: Elna: RC2/RE2; IC: RAR/RSS; Marcon: SEM/SSM; Nichicon: LB/VX/USA/SR/SA; Rubycon: MS7/TWSS; Sprague: 501D/513D; UCC: SME/SRE/SRA/SRG; Panasonic: KA/KS/SU



## 105°C – HT Type General Purpose (Continued)

Blue Part No. = Limited Quantity Available

\* Prepackaged: please order in increments of 10

Blue Part No. = Limited Quantity Available

\* Prepackaged: please order in increments of 10

| Part No. | Cross Ref. No. † | Value (µF) | Voltage | Size (mm)<br>D x H x L.S. | Pricing |        |        |        |
|----------|------------------|------------|---------|---------------------------|---------|--------|--------|--------|
|          |                  |            |         |                           | 1       | 10     | 100    | 500    |
| 609983   | UVZ2E2R2MED      | 2.2        | 250V    | 6.3 x 11 x 2.5            | \$.30   | \$.205 | \$.144 | \$.096 |
| 610052   | UVZ2W2R2MPD      | 2.2        | 450V    | 10 x 12.5 x 5             | .37     | .277   | .20    | .144   |
| 607961   | UPW1H3R3MDD      | 3.3        | 50V     | 5 x 11 x 2                | *.37    | .119   | .088   | .072   |
| 609799   | UVZ2A3R3MDD      | 3.3        | 100V    | 5 x 11 x 2                | .20     | .134   | .096   | .064   |
| 608382   | UPW2A3R3MDD      | 3.3        | 100V    | 5 x 11 x 2                | .24     | .166   | .12    | .096   |
| 609861   | UVZ2C3R3MED      | 3.3        | 160V    | 6.3 x 11 x 2.5            | .30     | .198   | .144   | .102   |
| 609932   | UVZ2D3R3MED      | 3.3        | 200V    | 6.3 x 11 x 2.5            | .30     | .205   | .144   | .096   |
| 610001   | UVZ2E3R3MPD      | 3.3        | 250V    | 8 x 11.5 x 3.5            | .30     | .205   | .144   | .096   |
| 610079   | UVZ2W3R3MPD      | 3.3        | 450V    | 10 x 16 x 5               | .44     | .332   | .24    | .17    |
| 609596   | UVZ1H3R3MDD      | 3.6        | 50V     | 5 x 11 x 2                | .20     | .126   | .088   | .056   |
| 607996   | UPW1H4R7MDD      | 4.7        | 50V     | 5 x 11 x 2                | *.119   | .088   | .072   |        |
| 330781   | RB4.7/50         | 4.7        | 50V     | 5 x 11 x 2                | *.056   | .046   | .036   |        |
| 609810   | UVZ2A4R7MDD      | 4.7        | 100V    | 5 x 11 x 2                | .20     | .134   | .096   | .064   |
| 609887   | UVZ2C4R7MED      | 4.7        | 160V    | 6.3 x 11 x 2.5            | .30     | .205   | .144   | .096   |
| 609941   | UVZ2D4R7MPD      | 4.7        | 200V    | 8 x 11.5 x 3.5            | .30     | .229   | .168   | .12    |
| 330851   | RB4.7/250        | 4.7        | 250V    | 8 x 11 x 3.5              | *.14    | .122   | .105   |        |
| 610087   | UVZ2W4R7MPD      | 4.7        | 450V    | 10 x 20 x 5               | .54     | .403   | .304   | .219   |
| 330691   | RB10/16          | 10         | 16V     | 5 x 11 x 2                | *.041   | .033   | .025   |        |
| 607849   | UPW1H100MDD      | 10         | 50V     | 5 x 11 x 2                | .20     | .134   | .096   | .072   |
| 330799   | RB10/50          | 10         | 50V     | 5 x 11 x 2                | *.056   | .046   | .036   |        |
| 609641   | UVZ1J100MDD      | 10         | 63V     | 5 x 11 x 2                | *.126   | .096   | .064   |        |
| 608331   | UPW2A100MED      | 10         | 100V    | 6.3 x 11 x 2.5            | .27     | .198   | .144   | .112   |
| 158529   | R10B100          | 10         | 100V    | 6 x 11 x 2.5              | *.08    | .07    | .055   |        |
| 330844   | RB10/160         | 10         | 160V    | 8 x 11 x 3.5              | *.149   | .127   | .095   |        |
| 609908   | UVZ2D100MPD      | 10         | 200V    | 10 x 12.5 x 5             | .38     | .284   | .208   | .144   |
| 330861   | RB10/250         | 10         | 250V    | 10 x 17 x 5               | .22     | .207   | .181   | .162   |
| 610036   | UVZ2W100MHD      | 10         | 450V    | 12.5 x 20 x 5             | .82     | .62    | .464   | .332   |
| 608059   | UPW1J120MDD      | 12         | 63V     | 5 x 11 x 2                | .25     | .174   | .12    | .096   |
| 606926   | UHE1J150MDD      | 15         | 63V     | 5 x 11 x 2                | *.111   | .08    | .072   |        |
| 607110   | UHE2A150MED      | 15         | 100V    | 6.3 x 11 x 2.5            | *.142   | .104   | .088   |        |
| 608067   | UPW1J180MDD      | 18         | 63V     | 5 x 11 x 2                | .25     | .19    | .136   | .104   |
| 607401   | UPW1A220MDD      | 22         | 10V     | 5 x 11 x 2                | *.126   | .09    | .085   |        |
| 158326   | R22B35           | 22         | 35V     | 5 x 11 x 2                | *.07    | .05    | .03    |        |
| 607890   | UPW1H220MDD      | 22         | 50V     | 5 x 11 x 2                | .25     | .174   | .12    | .096   |
| 606811   | UHE1H220MDD      | 22         | 50V     | 5 x 11 x 2                | *.111   | .08    | .072   |        |
| 330801   | RB22/50          | 22         | 50V     | 6 x 11 x 2.5              | *.067   | .055   | .04    |        |
| 609650   | UVZ1J220MDD      | 22         | 63V     | 5 x 11 x 2                | .23     | .166   | .12    | .072   |
| 608083   | UPW1J220MED      | 22         | 63V     | 6.3 x 11 x 2.5            | .25     | .19    | .136   | .104   |
| 609828   | UVZ2C220MPD      | 22         | 160V    | 10 x 16 x 5               | .44     | .324   | .232   | .17    |
| 609975   | UVZ2E220MHD      | 22         | 250V    | 12.5 x 20 x 5             | .51     | .387   | .288   | .211   |
| 610044   | UVZ2W220MHD      | 22         | 450V    | 16 x 25 x 7.5             | 1.16    | .87    | .66    | .47    |
| 607929   | UPW1H270MDD      | 27         | 50V     | 5 x 11 x 2                | .25     | .174   | .12    | .096   |
| 609713   | UVZ1V330MDD      | 33         | 35V     | 5 x 11 x 2                | .20     | .15    | .104   | .072   |
| 608243   | UPW1V330MDD      | 33         | 35V     | 5 x 11 x 2                | .24     | .166   | .112   | .088   |
| 607072   | UHE1V330MDD      | 33         | 35V     | 5 x 11 x 2                | *.111   | .08    | .072   |        |
| 609570   | UVZ1H330MDD      | 33         | 50V     | 5 x 11 x 2                | .23     | .158   | .112   | .072   |
| 607945   | UPW1H330MED      | 33         | 50V     | 6.3 x 11 x 2.5            | .25     | .19    | .136   | .104   |
| 609684   | UVZ1J330MED      | 33         | 63V     | 6.3 x 11 x 2.5            | .26     | .174   | .128   | .088   |
| 608104   | UPW1J330MED      | 33         | 63V     | 6.3 x 11 x 2.5            | .27     | .205   | .144   | .112   |
| 606969   | UHE1J330MED      | 33         | 63V     | 6.3 x 11 x 2.5            | *.142   | .104   | .089   |        |
| 609781   | UVZ2A330MPD      | 33         | 100V    | 8 x 11.5 x 3.5            | .30     | .229   | .16    | .12    |
| 608374   | UPW2A330MPD      | 33         | 100V    | 8 x 15 x 3.5              | .43     | .316   | .232   | .194   |
| 609991   | UVZ2E330MHD      | 33         | 250V    | 12.5 x 20 x 5             | .59     | .442   | .32    | .235   |
| 610061   | UVZ2W330MHD      | 33         | 450V    | 16 x 35.5 x 7.5           | 1.46    | 1.11   | .85    | .64    |
| 608286   | UPW1V390MDD      | 39         | 35V     | 5 x 11 x 2                | .25     | .174   | .12    | .096   |
| 607144   | UHE2A390MPD      | 39         | 100V    | 8 x 15 x 3.5              | .21     | .166   | .128   | .104   |
| 609502   | UVZ1C470MDD      | 47         | 16V     | 5 x 11 x 2                | *.134   | .096   | .064   |        |
| 606723   | UHE1E470MDD      | 47         | 25V     | 5 x 11 x 2                | *.111   | .08    | .072   |        |

| Part No. | Cross Ref. No. † | Value (µF) | Voltage | Size (mm)<br>D x H x L.S. | Pricing |        |        |      |
|----------|------------------|------------|---------|---------------------------|---------|--------|--------|------|
|          |                  |            |         |                           | 1       | 10     | 100    | 500  |
| 158246   | R47B25           | 47         | 25V     | 5 x 11 x 2                | *.046   | \$.039 | \$.029 |      |
| 609730   | UPV1V470MDD      | 47         | 35V     | 5 x 11 x 2                | *.103   | .072   | .048   |      |
| 607970   | UPW1H470MED      | 47         | 50V     | 6.3 x 11 x 2.5            | .27     | .205   | .144   | .112 |
| 607988   | UPW1H471MHD      | 47         | 50V     | 6.3 x 11 x 2.5            | .80     | .59    | .448   | .348 |
| 330819   | RB47/50          | 47         | 50V     | 6 x 11 x 2.5              | *.102   | .08    | .057   |      |
| 608139   | UPW1J470MPD      | 47         | 63V     | 8 x 11.5 x 3.5            | .30     | .229   | .16    | .12  |
| 609801   | UVZ2A470MPD      | 47         | 100V    | 10 x 12.5 x 5             | .35     | .261   | .184   | .136 |
| 608391   | UPW2A470MPD      | 47         | 100V    | 10 x 16 x 5               | .47     | .356   | .264   | .219 |
| 607161   | UHE2A470MPD      | 47         | 100V    | 10 x 12.5 x 5             | .21     | .166   | .128   | .104 |
| 609879   | UVZ2C470MHD      | 47         | 160V    | 12.5 x 20 x 5             | .59     | .435   | .32    | .235 |
| 610010   | UVZ2E470MHD      | 47         | 250V    | 12.5 x 25 x 5             | .86     | .65    | .488   | .348 |
| 607822   | UPW1E560MDD      | 56         | 25V     | 5 x 11 x 2                | .24     | .166   | .12    | .096 |
| 608008   | UPW1H560MED      | 56         | 50V     | 6.3 x 15 x 2.5            | .28     | .205   | .152   | .12  |
| 606862   | UHE1H560MED      | 56         | 50V     | 6.3 x 11 x 2.5            | *.142   | .112   | .088   |      |
| 608155   | UPW1J680MPD      | 68         | 63V     | 8 x 11.5 x 3.5            | .39     | .284   | .208   | .162 |
| 607507   | UPW1A820MDD      | 82         | 10V     | 5 x 11 x 2                | .20     | .134   | .096   | .08  |
| 607671   | UPW1C820MDD      | 82         | 16V     | 5 x 11 x 2                | .23     | .15    | .112   | .088 |
| 607005   | UHE1J820MPD      | 82         | 63V     | 8 x 15 x 3.5              | .27     | .221   | .168   | .136 |
| 609300   | UVZ0J101MDD      | 100        | 6.3V    | 5 x 11 x 2                | *.134   | .096   | .064   |      |
| 609414   | UVZ1A101MDD      | 100        | 10V     | 5 x 11 x 2                | *.119   | .088   | .056   |      |
| 330704   | RB100/16         | 100        | 16V     | 6 x 11 x 2.5              | *.058   | .049   | .039   |      |
| 606686   | UHE1E101MED      | 100        | 25V     | 6.3 x 11 x 2.5            | *.142   | .112   | .088   |      |
| 330740   | RB100/25         | 100        | 25V     | 6 x 11 x 2.5              | *.067   | .057   | .048   |      |
| 607700   | UPW1E101MED      | 100        | 25V     | 6.3 x 11 x 2.5            | .27     | .205   | .152   | .104 |
| 330747   | RB100/35         | 100        | 35V     | 8 x 11 x 3.5              | *.084   | .08    | .074   |      |
| 158393   | R100B50          | 100        | 50V     | 8 x 11 x 3.5              | *.09    | .07    | .055   |      |
| 607857   | UPW1H101MPD      | 100        | 50V     | 8 x 11.5 x 3.5            | .39     | .284   | .208   | .162 |
| 606774   | UHE1H101MPD      | 100        | 50V     | 8 x 11.5 x 3.5            | .25     | .205   | .152   | .128 |
| 608024   | UPW1J101MPD      | 100        | 63V     | 10 x 12.5 x 5             | .43     | .316   | .232   | .194 |
| 608032   | UPW1J101MPD      | 100        | 63V     | 8 x 15 x 3.5              | .43     | .316   | .232   | .194 |
| 330827   | RB100/63         | 100        | 63V     | 10 x 13 x 5               | *.149   | .132   | .114   |      |
| 609748   | UVZ2A101MPD      | 100        | 100V    | 10 x 20 x 5               | .49     | .363   | .264   | .194 |
| 609916   | UVZ2D101MHD      | 100        | 200V    | 16 x 31.5 x 7.5           | 1.45    | 1.10   | .83    | .59  |
| 609967   | UVZ2E101MHD      | 100        | 250V    | 16 x 31.5 x 7.5           | 1.55    | 1.17   | .89    | .67  |
| 607523   | UPW1C121MED      | 120        | 16V     | 6.3 x 11 x 2.5            | .25     | .174   | .12    | .096 |
| 606619   | UHE1C121MED      | 120        | 16V     | 6.3 x 11 x 2.5            | *.111   | .08    | .072   |      |
| 607726   | UPW1E121MED      | 120        | 25V     | 6.3 x 12 x 2.5            | .28     | .205   | .152   | .12  |
| 606791   | UHE1H121MPD      | 120        | 50V     | 8 x 15 x 3.5              | .27     | .221   | .168   | .136 |
| 606900   | UHE1J121MPD      | 120        | 63V     | 8 x 20 x 3.5              | .33     | .269   | .20    | .17  |
| 607101   | UHE2A121MPD      | 120        | 100V    | 10 x 31.5 x 5             | .36     | .284   | .216   | .186 |
| 608198   | UPW1V151MPD      | 150        | 35V     | 8 x 11.5 x 3.5            | .30     | .229   | .16    | .12  |
| 607048   | UHE1V151MPD      | 150        | 35V     | 8 x 11.5 x 3.5            | .20     | .158   | .12    | .104 |
| 606803   | UHE1H151MPD      | 150        | 50V     | 10 x 12.5 x 5             | .27     | .221   | .168   | .136 |
| 608340   | UPW2A151MHD      | 150        | 100V    | 12.5 x 25 x 5             | 1.07    | .81    | .61    | .47  |
| 607540   | UPW1C181MED      | 180        | 16V     | 6.3 x 12 x 2.5            | .26     | .19    | .136   | .104 |
| 607881   | UPW1H181MPD      | 180        | 50V     | 8 x 20 x 3.5              | .47     | .356   | .264   | .219 |
| 608075   | UPW1J181MHD      | 180        | 63V     | 12.5 x 15 x 5             | .68     | .514   | .376   | .292 |
| 606934   | UHE1J181MPD      | 180        | 63V     | 10 x 20 x 5               | .44     | .356   | .272   | .227 |
| 607128   | UHE2A181MHD      | 180        | 100V    | 12.5 x 25 x 5             | .44     | .356   | .272   | .227 |
| 609334   | UPW0J221MDD      | 220        | 6.3V    | 5 x 11 x 2                | .22     | .142   | .104   | .072 |
| 607259   | UPW0J221MED      | 220        | 6.3V    | 6.3 x 11 x 2.5            | .25     | .174   | .12    | .096 |
| 607419   | UPW1A221MED      | 220        | 10V     | 6.3 x 11 x 2.5            | .26     | .19    | .136   | .104 |
| 606555   | UHE1A221MED      | 220        | 10V     | 6.3 x 11 x 2.5            | *.134   | .104   | .088   |      |
| 311758   | R220B10          | 220        | 10V     | 6 x 11 x 2.5              | .45     | .39    | .36    | .33  |
| 609481   | UHE1C221MED      | 220        | 16V     | 6.3 x 11 x 2.5            | .25     | .19    | .136   | .096 |
| 158263   | R220B25          | 220        | 25V     | 8 x 11 x 3.5              | *.12    | .09    | .07    |      |
| 608201   | UPW1V221MPD      | 220        | 35V     | 10 x 12.5 x 5             | .44     | .324   | .232   | .194 |
| 608219   | UPW1V221MPD      | 220        | 35V     | 8 x 15 x 3.5              | .44     | .324   | .232   | .194 |



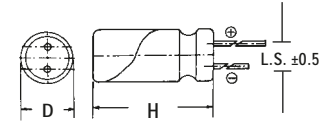


## Aluminum Radial-Lead Electrolytic Capacitors (±20%)



|                           |              |                                     |
|---------------------------|--------------|-------------------------------------|
| Leakage Current<br>(20°C) | After 1 min. | 0.03CV or 4μA, whichever is greater |
|                           | After 2 min. | 0.01CV or 3μA, whichever is greater |




























† CROSS REFERENCES: Elna: RC2/RE2; IC: RAR/RSS; Marcon: SEM/SSM; Nichicon: LB/VX/USA/SR/SA;  
 Rubycon: MS7/TWSS; Sprague: 501D/513D; UCC: SME/SRE/SRA/SRG; Panasonic: KA/KS/SU






























### 105°C – HT Type General Purpose (Continued)

\* Prepackaged: please order in increments of 10

\* Prepackaged: please order in increments of 10

| Part No. | Cross Ref. No. †   | Value (μF) | Voltage | Size (mm)<br>D x H x L.S. | Pricing |         |         |         |
|----------|--|------------|---------|---------------------------|---------|---------|---------|---------|
|          |  |            |         |                           | 1       | 10      | 100     | 500     |
| 330755   | RB220/35S       | 220        | 35V     | 8 x 16 x 3.5              | *       | \$ .149 | \$ .127 | \$ .095 |
| 607902   | UPW1H221MPD     | 220        | 50V     | 10 x 16 x 5               | .47     | .356    | .264    | .219    |
| 606820   | UHE1H221MPD  | 220        | 50V     | 10 x 16 x 5               | .33     | .269    | .20     | .17     |
| 158406   | R220B50         | 220        | 50V     | 10 x 12 x 5               | .36     | .306    | .27     | .26     |
| 609668   | UVZ1J221MPD     | 220        | 63V     | 10 x 16 x 5               | .55     | .403    | .296    | .219    |
| 608091   | UPW1J221MPD6    | 220        | 63V     | 10 x 25 x 5               | .83     | .62     | .456    | .389    |
| 606942   | UHE1J221MPD     | 220        | 63V     | 10 x 25 x 5               | .44     | .356    | .272    | .227    |
| 609764   | UVZ2A221MHD     | 220        | 100V    | 12.5 x 25 x 5             | .83     | .62     | .464    | .34     |
| 608358   | UPW2A221MHD     | 220        | 100V    | 16 x 25 x 7.5             | 1.17    | .88     | .66     | .56     |
| 609836   | UVZ2C221MHD     | 220        | 160V    | 16 x 35.5 x 7.5           | 1.49    | 1.14    | .87     | .65     |
| 606951   | UHE1J271MPD    | 270        | 63V     | 10 x 31.5 x 5             | .59     | .474    | .36     | .308    |
| 609369   | UVZ0J331MED   | 330        | 6.3V    | 6.3 x 11 x 2.5            | .26     | .174    | .128    | .088    |
| 607275   | UPW0J331MED   | 330        | 6.3V    | 6.3 x 11 x 2.5            | .30     | .205    | .144    | .112    |
| 606483   | UHE0J331MED   | 330        | 6.3V    | 6.3 x 11 x 2.5            | *       | .126    | .096    | .08     |
| 606651   | UHE1C331MPD   | 330        | 16V     | 8 x 11.5 x 5              | .25     | .205    | .152    | .128    |
| 607566   | UPW1C331MPD   | 330        | 16V     | 8 x 11.5 x 3.5            | .39     | .284    | .208    | .162    |
| 330712   | RB330/16      | 330        | 16V     | 8 x 11 x 3.5              | *       | .102    | .08     | .057    |
| 609537   | UVZ1E331MPD   | 330        | 25V     | 10 x 12.5 x 5             | .29     | .213    | .16     | .104    |
| 607777   | UPW1E331MPD6  | 330        | 25V     | 8 x 15 x 3.5              | .40     | .292    | .208    | .17     |
| 606707   | UHE1E331MPD   | 330        | 25V     | 8 x 15 x 3.5              | .24     | .19     | .144    | .12     |
| 609721   | UVZ1V331MPD   | 330        | 35V     | 10 x 12.5 x 5             | .34     | .253    | .176    | .128    |
| 608251   | UPW1V331MPD   | 330        | 35V     | 10 x 16 x 5               | .54     | .403    | .296    | .243    |
| 608260   | UPW1V331MPD6  | 330        | 35V     | 8 x 20 x 3.5              | .54     | .403    | .296    | .243    |
| 607081   | UHE1V331MPD   | 330        | 35V     | 10 x 16 x 5               | .38     | .308    | .232    | .194    |
| 607953   | UPW1H331MPD   | 330        | 50V     | 10 x 20 x 5               | .64     | .482    | .36     | .292    |
| 606846   | UHE1H331MPD   | 330        | 50V     | 10 x 25 x 5               | .44     | .356    | .272    | .227    |
| 609692   | UVZ1J331MPD   | 330        | 63V     | 10 x 20 x 5               | .62     | .466    | .344    | .243    |
| 608112   | UPW1J331MHD   | 330        | 63V     | 12.5 x 20 x 5             | .84     | .62     | .456    | .365    |
| 607136   | UHE2A331MHD   | 330        | 100V    | 12.5 x 40 x 5             | 1.21    | .96     | .72     | .62     |
| 609852   | UVZ2C331MHD   | 330        | 160V    | 18 x 40 x 7.5             | 1.89    | 1.42    | 1.08    | .81     |
| 608294   | UPW1V391MPD   | 390        | 35V     | 10 x 16 x 5               | .68     | .514    | .376    | .292    |
| 608121   | UPW1J391MHD   | 390        | 63V     | 18 x 15 x 7.5             | .97     | .73     | .544    | .437    |
| 606977   | UHE1J391MHD   | 390        | 63V     | 18 x 15 x 7.5             | .69     | .56     | .424    | .365    |
| 607152   | UHE2A391MHD   | 390        | 100V    | 16 x 31.5 x 7.5           | 1.23    | .97     | .73     | .63     |
| 609385   | UVZ0J471MED   | 470        | 6.3V    | 6.3 x 11 x 2.5            | .25     | .19     | .136    | .096    |
| 607460   | UPW1A471MPD   | 470        | 10V     | 8 x 11.5 x 3.5            | .38     | .277    | .20     | .144    |
| 606571   | UHE1A471MPD   | 470        | 10V     | 8 x 11.5 x 3.5            | .24     | .198    | .152    | .128    |
| 607603   | UPW1C471MPD   | 470        | 16V     | 10 x 12.5 x 5             | .41     | .30     | .216    | .17     |
| 607611   | UPW1C471MPD6  | 470        | 16V     | 8 x 15 x 3.5              | .41     | .30     | .216    | .17     |
| 158203   | R470B16       | 470        | 16V     | 8 x 11 x 3.5              | *       | .12     | .10     | .09     |
| 606678   | UHE1C471MPD   | 470        | 16V     | 8 x 15 x 3.5              | .26     | .205    | .16     | .136    |
| 158289   | R470B25       | 470        | 25V     | 10 x 15 x 3.5             | .46     | .15     | .12     | .10     |
| 606731   | UHE1E471MPD   | 470        | 25V     | 8 x 20 x 3.5              | .38     | .308    | .232    | .194    |
| 606740   | UHE1E471MPD6  | 470        | 25V     | 10 x 16 x 5               | .38     | .308    | .232    | .194    |
| 607793   | UPW1E471MPD   | 470        | 25V     | 10 x 16 x 5               | .53     | .403    | .296    | .235    |
| 607806   | UPW1E471MPD6  | 470        | 25V     | 8 x 20 x 3.5              | .53     | .403    | .296    | .235    |
| 608307   | UPW1V471MPD   | 470        | 35V     | 10 x 20 x 5               | .69     | .514    | .384    | .332    |
| 330763   | RB470/35      | 470        | 35V     | 10 x 15 x 5               | .31     | .268    | .215    | .161    |
| 609609   | UVZ1H471MHD   | 470        | 50V     | 12.5 x 20 x 5             | .82     | .62     | .464    | .324    |
| 607988   | UPW1H471MHD   | 470        | 50V     | 12.5 x 20 x 5             | .80     | .59     | .448    | .348    |
| 606854   | UHE1H471MHD   | 470        | 50V     | 10 x 31.5 x 5             | .59     | .474    | .36     | .30     |
| 608147   | UPW1J471MHD   | 470        | 63V     | 12.5 x 31.5 x 5           | .97     | .73     | .55     | .437    |
| 606985   | UHE1J471MHD   | 470        | 63V     | 12.5 x 31.5 x 5           | .72     | .58     | .44     | .373    |
| 608016   | UPW1H561MHD   | 560        | 50V     | 12.5 x 25 x 5             | .97     | .73     | .55     | .437    |
| 606504   | UHE0J681MPD   | 680        | 6.3V    | 8 x 11.5 x 3.5            | .24     | .198    | .152    | .128    |
| 606598   | UHE1A681MPD   | 680        | 10V     | 8 x 15 x 3.5              | .25     | .205    | .152    | .128    |
| 607654   | UPW1C681MPD   | 680        | 16V     | 10 x 16 x 5               | .51     | .387    | .288    | .235    |
| 607662   | UPW1C681MPD6  | 680        | 16V     | 8 x 20 x 3.5              | .51     | .387    | .288    | .235    |

| Part No. | Cross Ref. No.†  | Value (µF) | Voltage | Size (mm)<br>D x H x L.S. | Pricing |        |        |        |
|----------|--|------------|---------|---------------------------|---------|--------|--------|--------|
|          |  |            |         |                           | 1       | 10     | 100    | 500    |
| 606766   | UHE1E681MPD     | 680        | 25V     | 10 x 20 x 5               | \$.44   | \$.356 | \$.272 | \$.227 |
| 608315   | UPW1V681MHD     | 680        | 35V     | 12.5 x 20 x 5             | .84     | .60    | .456   | .373   |
| 607099   | UHE1V681MPD     | 680        | 35V     | 10 x 31.5 x 5             | .57     | .458   | .352   | .292   |
| 606871   | UHE1H681MHD     | 680        | 50V     | 12.5 x 31.5 x 5           | .72     | .58    | .44    | .373   |
| 608163   | UPW1J681MHD     | 680        | 63V     | 16 x 25 x 5               | 1.17    | .88    | .66    | .56    |
| 606993   | UHE1J681MHD     | 680        | 63V     | 12.5 x 40 x 5             | .88     | .68    | .518   | .454   |
| 607179   | UHE2A681MHD     | 680        | 100V    | 18 x 35.5 x 7.5           | 1.39    | 1.09   | .83    | .71    |
| 607355   | UPW0J821MPD     | 820        | 6.3V    | 8 x 15 x 3.5              | .39     | .284   | .208   | .162   |
| 607689   | UPW1C821MPD     | 820        | 16V     | 10 x 20 x 5               | .60     | .45    | .336   | .292   |
| 607013   | UHE1J821MHD     | 820        | 63V     | 16 x 31.5 x 7.5           | 1.23    | .97    | .73    | .63    |
| 606432   | UHE0J102MPD   | 1000       | 6.3V    | 8 x 15 x 3.5              | *       | .142   | .112   | .096   |
| 607187   | UPW0J102MPD   | 1000       | 6.3V    | 10 x 12.5 x 5             | .43     | .316   | .232   | .194   |
| 609422   | UVZ1A102MPD   | 1000       | 10V     | 10 x 12.5 x 5             | .42     | .316   | .24    | .17    |
| 607363   | UPW1A102MPD6  | 1000       | 10V     | 8 x 20 x 3.5              | .48     | .356   | .256   | .194   |
| 606512   | UHE1A102MPD   | 1000       | 10V     | 8 x 20 x 3.5              | .34     | .269   | .208   | .17    |
| 606521   | UHE1A102MPD6  | 1000       | 10V     | 10 x 16 x 5               | .34     | .269   | .208   | .17    |
| 609465   | UVZ1C102MPD   | 1000       | 16V     | 10 x 16 x 5               | .50     | .316   | .28    | .203   |
| 607515   | UPW1C102MPD   | 1000       | 16V     | 10 x 20 x 5               | .60     | .45    | .336   | .292   |
| 606601   | UHE1C102MPD   | 1000       | 16V     | 10 x 20 x 5               | .43     | .348   | .264   | .219   |
| 330722   | RB1000/16     | 1000       | 16V     | 10 x 20 x 5               | .23     | .216   | .19    | .171   |
| 158298   | R1000B25      | 1000       | 25V     | 10 x 20 x 5               | .35     | .29    | .25    | .19    |
| 607718   | UPW1E102MHD   | 1000       | 25V     | 12.5 x 20 x 5             | .81     | .60    | .44    | .348   |
| 608171   | UPW1V102MHD   | 1000       | 35V     | 12.5 x 25 x 5             | .94     | .70    | .528   | .454   |
| 607021   | UHE1V102MHD   | 1000       | 35V     | 12.5 x 25 x 5             | .69     | .56    | .424   | .365   |
| 158377   | R1000B35      | 1000       | 35V     | 10 x 20 x 5               | .49     | .45    | .40    | .35    |
| 609553   | UVZ1H102MHD   | 1000       | 50V     | 12.5 x 25 x 5             | .79     | .58    | .432   | .316   |
| 607865   | UPW1H102MHD   | 1000       | 50V     | 16 x 25 x 7.5             | 1.17    | .88    | .66    | .56    |
| 606782   | UHE1H102MHD   | 1000       | 50V     | 12.5 x 40 x 5             | .87     | .68    | .518   | .454   |
| 608041   | UPW1J102MHD   | 1000       | 63V     | 16 x 31.5 x 7.5           | 1.55    | 1.16   | .88    | .70    |
| 606889   | UHE1J102MHD   | 1000       | 63V     | 12.5 x 40 x 5             | 1.23    | .97    | .73    | .63    |
| 606897   | UHE1J102MHD6  | 1000       | 63V     | 18 x 31.5 x 7.5           | 1.23    | .97    | .73    | .63    |
| 609756   | UVZ2A102MHD   | 1000       | 100V    | 18 x 40 x 7.5             | 1.89    | 1.44   | 1.10   | .82    |
| 606459   | UHE0J122MPD   | 1200       | 6.3V    | 8 x 20 x 3.5              | .30     | .245   | .184   | .152   |
| 607216   | UPW0J122MPD   | 1200       | 6.3V    | 8 x 20 x 3.5              | .44     | .324   | .232   | .178   |
| 607224   | UPW0J122MPD6  | 1200       | 6.3V    | 10 x 16 x 5               | .47     | .356   | .264   | .211   |
| 607380   | UPW1A122MPD   | 1200       | 10V     | 10 x 20 x 5               | .53     | .403   | .296   | .235   |
| 606547   | UHE1A122MPD   | 1200       | 10V     | 10 x 20 x 5               | .38     | .308   | .232   | .194   |
| 606627   | UHE1C122MPD   | 1200       | 16V     | 10 x 25 x 5               | .39     | .316   | .24    | .203   |
| 606694   | UHE1E122MHD   | 1200       | 25V     | 18 x 15 x 7.5             | .64     | .521   | .392   | .332   |
| 608180   | UPW1V122MHD   | 1200       | 35V     | 12.5 x 31.5 x 5           | 1.17    | .88    | .66    | .56    |
| 607030   | UHE1V122MHD   | 1200       | 35V     | 12.5 x 31.5 x 5           | .88     | .68    | .518   | .454   |
| 606918   | UHE1J122MHD   | 1200       | 63V     | 16 x 40 x 7.5             | 1.39    | 1.09   | .83    | .71    |
| 607232   | UPW0J152MPD   | 1500       | 6.3V    | 10 x 20 x 5               | .47     | .356   | .264   | .219   |
| 607398   | UPW1A152MPD6  | 1500       | 10V     | 10 x 25 x 5               | .55     | .419   | .304   | .235   |
| 607531   | UPW1C152MHD   | 1500       | 16V     | 12.5 x 20 x 5             | .84     | .62    | .456   | .365   |
| 606635   | UHE1C152MPD   | 1500       | 16V     | 10 x 31.5 x 5             | .57     | .458   | .352   | .30    |
| 607734   | UPW1E152MHD   | 1500       | 25V     | 16 x 25 x 7.5             | .94     | .70    | .528   | .429   |
| 607742   | UPW1E152MHD6  | 1500       | 25V     | 12.5 x 25 x 5             | .94     | .70    | .528   | .429   |
| 607873   | UPW1H152MHD   | 1500       | 50V     | 16 x 31.5 x 7.5           | 1.55    | 1.16   | .88    | .70    |
| 606467   | UHE0J182MHD   | 1800       | 6.3V    | 12.5 x 15 x 5             | .35     | .284   | .216   | .186   |
| 607751   | UPW1E182MHD   | 1800       | 25V     | 12.5 x 31.5 x 5           | 1.17    | .88    | .66    | .56    |
| 607056   | UHE1V182MHD   | 1800       | 35V     | 12.5 x 40 x 5             | .92     | .71    | .54    | .47    |
| 607267   | UPW0J222MPD6  | 2200       | 6.3V    | 10 x 25 x 5               | .62     | .466   | .344   | .292   |
| 609342   | UVZ0J222MPD   | 2200       | 6.3V    | 10 x 20 x 5               | .51     | .356   | .248   | .203   |
| 606475   | UHE0J222MPD   | 2200       | 6.3V    | 10 x 25 x 5               | .43     | .348   | .264   | .219   |
| 607427   | UPW1A222MHD   | 2200       | 10V     | 12.5 x 20 x 5             | .79     | .59    | .44    | .348   |
| 606563   | UHE1A222MPD   | 2200       | 10V     | 10 x 31.5 x 5             | .55     | .442   | .28    | .20    |
| 609490   | UVZ1C222MHD   | 2200       | 16V     | 12.5 x 20 x 5             | .80     | .59    | .448   | .324   |

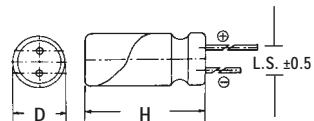
JAMECO ValuePro

## Aluminum Radial-Lead Electrolytic Capacitors (±20%)



|                           |              |                                     |
|---------------------------|--------------|-------------------------------------|
| Leakage Current<br>(20°C) | After 1 min. | 0.03CV or 4µA, whichever is greater |
|                           | After 2 min. | 0.01CV or 3µA, whichever is greater |

† CROSS REFERENCES: Elna: RC2/RE2; IC: RAR/RSS; Marcon: SEM/SSM; Nichicon: LB/VX/USA/SR/SA;  
Rubycon: MS7/TWSS; Sprague: 501D/513D; UCC: SME/SRE/SRA/SRG; Panasonic: KA/KS/SU



## 105°C – HT Type General Purpose (Continued)

| Part No. | Cross Ref. No.† | Value (µF) | Voltage | Size (mm)<br>D x H x L.S. | Pricing |       |        |        |
|----------|-----------------|------------|---------|---------------------------|---------|-------|--------|--------|
|          |                 |            |         |                           | 1       | 10    | 100    | 500    |
| 606643   | UHE1C222MHD     | 2200       | 16V     | 12.5 x 25 x 5             | \$.69   | \$.56 | \$.424 | \$.365 |
| 609705   | UVZ1V222MHD     | 2200       | 35V     | 16 x 25 x 7.5             | 1.34    | 1.02  | .76    | .543   |
| 608227   | UPW1V222MHD     | 2200       | 35V     | 16 x 30.5 x 7.5           | 1.38    | 1.06  | .81    | .64    |
| 608235   | UPW1V222MHD     | 2200       | 35V     | 18 x 26.2 x 3.5           | 1.38    | 1.06  | .81    | .64    |
| 607064   | UHE1V222MHD     | 2200       | 35V     | 16 x 31.5 x 7.5           | 1.24    | .98   | .73    | .64    |
| 607911   | UPW1H222MHD     | 2200       | 50V     | 18 x 35.5 x 7.5           | 1.95    | 1.46  | 1.12   | .91    |
| 606838   | UHE1H222MHD     | 2200       | 50V     | 18 x 35.5 x 7.5           | 1.49    | 1.14  | .87    | .83    |
| 158431   | R2200B50        | 2200       | 50V     | 16 x 35 x 7.5             | .99     | .89   | .71    | .53    |
| 609676   | UVZ1J222MHD     | 2200       | 63V     | 18 x 35.5 x 7.5           | 1.65    | 1.26  | .96    | .73    |
| 607435   | UPW1A272MHD     | 2700       | 10V     | 12.5 x 25 x 5             | .82     | .61   | .448   | .365   |
| 607558   | UPW1C272MHD     | 2700       | 16V     | 16 x 31.5 x 7.5           | 1.22    | .92   | .70    | .56    |
| 607769   | UPW1E272MHD     | 2700       | 25V     | 16 x 25 x 7.5             | 1.38    | 1.06  | .81    | .64    |
| 609377   | UVZ0J332MPD     | 3300       | 6.3V    | 13 x 20 x 5               | .56     | .419  | .312   | .227   |
| 607283   | UPW0J332MHD     | 3300       | 6.3V    | 13 x 20 x 5               | .82     | .61   | .448   | .356   |
| 606491   | UHE0J332MHD     | 3300       | 6.3V    | 12.5 x 20 x 5             | .57     | .458  | .352   | .292   |
| 609449   | UVZ1A332MHD     | 3300       | 10V     | 12.5 x 20 x 5             | .82     | .59   | .448   | .324   |
| 607443   | UPW1A332MHD     | 3300       | 10V     | 12.5 x 31.5 x 5           | .69     | .521  | .384   | .292   |
| 607574   | UPW1C332MHD     | 3300       | 16V     | 16 x 25 x 7.5             | 1.26    | .95   | .71    | .543   |
| 607582   | UPW1C332MHD     | 3300       | 16V     | 12.5 x 35.5 x 5           | 1.26    | .95   | .71    | .543   |
| 606660   | UHE1C332MHD     | 3300       | 16V     | 12.5 x 35.5 x 5           | .92     | .71   | .54    | .47    |
| 607785   | UPW1E332MHD     | 3300       | 25V     | 18 x 25 x 7.5             | 1.45    | 1.10  | .84    | .67    |
| 606715   | UHE1E332MHD     | 3300       | 25V     | 16 x 31.5 x 7.5           | 1.24    | .98   | .73    | .64    |
| 608278   | UPW1V332MHD     | 3300       | 35V     | 18 x 35.5 x 7.5           | 1.79    | 1.35  | 1.03   | .84    |
| 609588   | UVZ1H332MHD     | 3300       | 50V     | 18 x 35.5 x 7.5           | 2.15    | 1.60  | 1.24   | .92    |
| 607291   | UPW0J392MHD     | 3900       | 6.3V    | 12.5 x 25 x 5             | .91     | .68   | .52    | .446   |
| 607451   | UPW1A392MHD     | 3900       | 10V     | 12.5 x 35.5 x 5           | .93     | .70   | .52    | .437   |
| 607591   | UPW1C392MHD     | 3900       | 16V     | 16 x 25 x 7.5             | 1.44    | 1.10  | .83    | .64    |
| 609393   | UVZ0J472MHD     | 4700       | 6.3V    | 12.5 x 20 x 5             | .83     | .62   | .472   | .34    |
| 607304   | UPW0J472MHD     | 4700       | 6.3V    | 16 x 25 x 7.5             | .93     | .70   | .52    | .437   |

| Part No. | Cross Ref. No.† | Value (µF) | Voltage | Size (mm)<br>D x H x L.S. | Pricing |       |       |        |
|----------|-----------------|------------|---------|---------------------------|---------|-------|-------|--------|
|          |                 |            |         |                           | 1       | 10    | 100   | 500    |
| 607312   | UPW0J472MHD     | 4700       | 6.3V    | 12.5 x 31.5 x 5           | \$.93   | \$.70 | \$.52 | \$.437 |
| 607478   | UPW1A472MHD     | 4700       | 10V     | 16 x 25 x 7.5             | 1.14    | .86   | .64   | .51    |
| 606580   | UHE1A472MHD     | 4700       | 10V     | 12.5 x 35.5 x 5           | .88     | .68   | .518  | .454   |
| 609511   | UVZ1C472MHD     | 4700       | 16V     | 16 x 25 x 7.5             | 1.46    | 1.14  | .81   | .61    |
| 607620   | UPW1C472MHD     | 4700       | 16V     | 16 x 31.5 x 7.5           | 1.44    | 1.10  | .83   | .64    |
| 607638   | UPW1C472MHD     | 4700       | 16V     | 18 x 25 x 7.5             | 1.44    | 1.10  | .83   | .64    |
| 606758   | UHE1E472MHD     | 4700       | 25V     | 16 x 40 x 7.5             | 1.55    | 1.19  | .91   | .78    |
| 607814   | UPW1E472MHD     | 4700       | 25V     | 18 x 35.5 x 7.5           | 1.46    | 1.12  | .85   | .75    |
| 607321   | UPW0J562MHD     | 5600       | 6.3V    | 12.5 x 35.5 x 5           | 1.17    | .88   | .66   | .56    |
| 607646   | UPW1C562MHD     | 5600       | 16V     | 16 x 35.5 x 7.5           | 1.55    | 1.16  | .88   | .70    |
| 609406   | UVZ0J682MHD     | 6800       | 6.3V    | 12.5 x 25 x 5             | 1.13    | .86   | .64   | .462   |
| 607339   | UPW0J682MHD     | 6800       | 6.3V    | 16 x 25 x 7.5             | 1.19    | .90   | .68   | .55    |
| 607347   | UPW0J682MHD     | 6800       | 6.3V    | 18 x 20 x 7.5             | 1.19    | .90   | .68   | .55    |
| 609457   | UVZ1A682MHD     | 6800       | 10V     | 16 x 25 x 7.5             | 1.49    | 1.14  | .87   | .62    |
| 607486   | UPW1A682MHD     | 6800       | 10V     | 16 x 31.5 x 7.5           | 1.55    | 1.16  | .88   | .70    |
| 607494   | UPW1A682MHD     | 6800       | 10V     | 18 x 25 x 7.5             | 1.55    | 1.16  | .88   | .70    |
| 609529   | UVZ1C682MHD     | 6800       | 16V     | 16 x 35.5 x 7.5           | 1.79    | 1.35  | 1.03  | .76    |
| 607697   | UPW1C822MHD     | 8200       | 16V     | 18 x 35.5 x 7.5           | 1.89    | 1.43  | 1.09  | .95    |
| 609318   | UVZ0J103MHD     | 10,000     | 6.3V    | 16 x 25 x 7.5             | 1.41    | 1.08  | .83   | .62    |
| 606441   | UHE0J103MHD     | 10,000     | 6.3V    | 18 x 15 x 7.5             | 1.30    | 1.02  | .77   | .66    |
| 607195   | UPW0J103MHD     | 10,000     | 6.3V    | 16 x 31.5 x 7.5           | 1.55    | 1.16  | .88   | .70    |
| 607208   | UPW0J103MHD     | 10,000     | 6.3V    | 18 x 25 x 7.5             | 1.55    | 1.16  | .88   | .70    |
| 607371   | UPW1A103MHD     | 10,000     | 10V     | 18 x 35.5 x 7.5           | 1.89    | 1.43  | 1.09  | .95    |
| 606539   | UHE1A103MHD     | 10,000     | 10V     | 16 x 40 x 7.5             | 1.45    | 1.11  | .85   | .82    |
| 609473   | UVZ1C103MHD     | 10,000     | 16V     | 18 x 35.5 x 7.5           | 1.89    | 1.44  | 1.09  | .82    |
| 609326   | UVZ0J153MHD     | 15,000     | 6.3V    | 16 x 35.5 x 7.5           | 1.79    | 1.35  | 1.03  | .73    |
| 607241   | UPW0J153MHD     | 15,000     | 6.3V    | 18 x 35.5 x 7.5           | 1.89    | 1.43  | 1.09  | .95    |
| 609431   | UPW1A153MHD     | 15,000     | 10V     | 18 x 35.5 x 7.5           | 1.89    | 1.44  | 1.09  | .82    |
| 609351   | UVZ0J223MHD     | 22,000     | 6.3V    | 18 x 40 x 7.5             | 2.09    | 1.58  | 1.22  | .92    |

## 85°C – General Purpose

Quantity SAVE

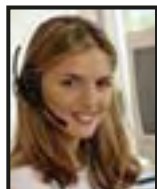
## Other Manufacturers — Great Deals\*

| Part No. | Cross Ref. No.† | Value (µF) | Voltage | Size (mm)<br>D x H x L.S. | Pricing |        |        |        |
|----------|-----------------|------------|---------|---------------------------|---------|--------|--------|--------|
|          |                 |            |         |                           | 1       | 10     | 100    | 500    |
| 29831    | R1/50           | 1          | 50V     | 5 x 11 x 2.0              | *       | \$.057 | \$.048 | \$.038 |
| 93729    | R2.2/50         | 2.2        | 50V     | 5 x 11 x 2.0              | .20     | .034   | .03    | .023   |
| 31000    | R4.7/50         | 4.7        | 50V     | 5 x 11 x 2.0              | *       | .038   | .033   | .026   |
| 29891    | R10/50          | 10         | 50V     | 5 x 11 x 2.0              | *       | .06    | .05    | .04    |
| 93737    | R22/50          | 22         | 50V     | 5 x 11 x 2.0              | *       | .032   | .027   | .02    |
| 93753    | R47/25          | 47         | 25V     | 5 x 11 x 2.0              | *       | .068   | .059   | .049   |
| 31114    | R47/50          | 47         | 50V     | 6 x 11 x 2.5              | *       | .06    | .05    | .045   |
| 207811   | R100/10         | 100        | 10V     | 5 x 11 x 2.0              | *       | .06    | .051   | .038   |
| 93761    | R100/25         | 100        | 25V     | 6 x 11 x 2.5              | *       | .07    | .05    | .035   |
| 29962    | R100/50         | 100        | 50V     | 8 x 11 x 3.5              | *       | .07    | .06    | .05    |
| 30496    | R220/25         | 220        | 25V     | 8 x 11 x 3.5              | *       | .08    | .06    | .05    |
| 93778    | R220/50         | 220        | 50V     | 10 x 12 x 5.0             | *       | .15    | .12    | .09    |
| 93796    | R330/25         | 330        | 25V     | 10 x 12 x 5.0             | *       | .118   | .084   | .061   |

\* Capacitor dimensions and styles may vary.

| Part No. | Cross Ref. No.† | Value (µF) | Voltage | Size (mm)<br>D x H x L.S. | Pricing |        |        |        |
|----------|-----------------|------------|---------|---------------------------|---------|--------|--------|--------|
|          |                 |            |         |                           | 1       | 10     | 100    | 500    |
| 93809    | R470/16         | 470        | 16V     | 8 x 11 x 3.5              | *       | \$.099 | \$.095 | \$.071 |
| 31181    | R470/25         | 470        | 25V     | 10 x 12 x 5.0             | *       | .12    | .10    | .09    |
| 93817    | R470/35         | 470        | 35V     | 10 x 16 x 5.0             | *       | .153   | .135   | .117   |
| 93825    | R470/50         | 470        | 50V     | 12 x 20 x 5.0             | .29     | .27    | .19    | .13    |
| 30015    | R1000/16        | 1000       | 16V     | 10 x 16 x 5.0             | .20     | .178   | .148   | .106   |
| 93833    | R1000/25        | 1000       | 25V     | 10 x 20 x 5.0             | .41     | .32    | .29    | .16    |
| 93841    | R1000/50        | 1000       | 50V     | 12 x 25 x 5.0             | .52     | .46    | .41    | .307   |
| 133145   | R2200/16        | 2200       | 16V     | 12 x 20 x 5.0             | .38     | .34    | .27    | .206   |
| 30533    | R2200/25        | 2200       | 25V     | 12 x 25 x 5.0             | .55     | .49    | .40    | .30    |
| 30891    | R3300/25        | 3300       | 25V     | 16 x 25 x 7.5             | .71     | .65    | .49    | .43    |
| 93850    | R4700/25        | 4700       | 25V     | 16 x 31 x 7.5             | .99     | .89    | .80    | .66    |
| 163301   | R4700/50        | 4700       | 50V     | 22 x 42 x 10.0            | 1.99    | 1.79   | 1.50   | 1.31   |
| 31510    | R6800/16        | 6800       | 16V     | 16 x 35 x 7.5             | .97     | .87    | .70    | .53    |

\* Capacitor dimensions and styles may vary.

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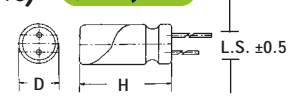
## Aluminum Radial-Lead Non-Polarized Electrolytic Capacitors (±20%)

Quantity SAVE

85°C – General Purpose



|                           |              |                                     |
|---------------------------|--------------|-------------------------------------|
| Leakage Current<br>(20°C) | After 1 min. | 0.03CV or 4µA, whichever is greater |
|                           | After 2 min. | 0.01CV or 3µA, whichever is greater |



† CROSS REFERENCES: Elna: RC2/RE2; IC: RAR/RSS; Marcon: SEM/SSM; Nichicon: LB/VX/USA/SR/SA; Rubycon: MS7/TWSS; Sprague: 501D/513D; UCC: SME/SRE/SRA/SRG; Panasonic: KA/KS/SU

\* Prepackaged: please order in increments of 10

Blue Part No. = Limited Quantity Available

| Part No. | Cross Ref. No.† | Value (µF) | Voltage | Size (mm)<br>D x H x L.S. | Pricing |      |      |      |
|----------|-----------------|------------|---------|---------------------------|---------|------|------|------|
|          |                 |            |         |                           | 1       | 10   | 100  | 500  |
| 330941   | RN1/50          | 1          | 50V     | 5 x 11 x 2.0              | * .159  | .085 | .075 |      |
| 331053   | RN1/100         | 1          | 100V    | 5 x 11 x 2.0              | * .169  | .135 | .101 |      |
| 330958   | RN2.2/50        | 2.2        | 50V     | 5 x 11 x 2.0              | * .159  | .085 | .064 |      |
| 331029   | RN2.2/63        | 2.2        | 63V     | 5 x 11 x 2.0              | .27     | .243 | .194 | .145 |
| 331061   | RN2.2/100       | 2.2        | 100V    | 5 x 11 x 2.0              | * .169  | .071 | .053 |      |
| 330966   | RN3.3/50        | 3.3        | 50V     | 5 x 11 x 2.0              | * .171  | .094 | .071 |      |
| 331070   | RN3.3/100       | 3.3        | 100V    | 5 x 11 x 2.0              | .21     | .189 | .095 | .071 |
| 330907   | RN4.7/25        | 4.7        | 25V     | 5 x 11 x 2.0              | .28     | .243 | .194 | .145 |
| 331088   | RN4.7/100       | 4.7        | 100V    | 6 x 11 x 2.5              | .21     | .188 | .095 | .071 |
| 330915   | RN10/25         | 10         | 25V     | 5 x 11 x 2.0              | .28     | .243 | .194 | .146 |

| Part No. | Cross Ref. No.† | Value (µF) | Voltage | Size (mm)<br>D x H x L.S. | Pricing |      |      |      |
|----------|-----------------|------------|---------|---------------------------|---------|------|------|------|
|          |                 |            |         |                           | 1       | 10   | 100  | 500  |
| 330982   | RN10/50         | 10         | 50V     | 8 x 11 x 3.5              | .22     | .198 | .114 | .105 |
| 331096   | RN10/100        | 10         | 100V    | 8 x 11 x 3.5              | .22     | .198 | .114 | .085 |
| 330878   | RN22/16         | 22         | 16V     | 5 x 11 x 2.0              | .26     | .234 | .187 | .14  |
| 330923   | RN22/25         | 22         | 25V     | 5 x 11 x 2.0              | .32     | .288 | .23  | .173 |
| 330991   | RN22/50         | 22         | 50V     | 6 x 11 x 2.5              | .33     | .31  | .144 | .108 |
| 331037   | RN22/63         | 22         | 63V     | 8 x 11 x 3.5              | .45     | .405 | .324 | .243 |
| 331109   | RN22/100        | 22         | 100V    | 10 x 15 x 5.0             | .33     | .297 | .171 | .128 |
| 331002   | RN47/50         | 47         | 50V     | 8 x 11 x 3.5              | .46     | .414 | .331 | .248 |
| 331117   | RN10/25         | 47         | 100V    | 10 x 20 x 5.0             | .51     | .455 | .345 | .259 |
| 330894   | RN100/16        | 100        | 16V     | 8 x 11 x 3.5              | .45     | .405 | .365 | .328 |
| 331012   | RN100/50        | 100        | 50V     | 10 x 17 x 5.0             | .69     | .63  | .467 | .359 |

## 85°C – Non-Polarized High-Frequency (Horizontal Deflection)

| Part No. | Cross Ref. No.† | Value (µF) | Voltage | Size (mm)<br>D x H x L.S. | Pricing |      |      |     |
|----------|-----------------|------------|---------|---------------------------|---------|------|------|-----|
|          |                 |            |         |                           | 1       | 10   | 100  | 500 |
| 331125   | RN1/25S         | 1          | 25V     | 8 x 11 x 3.5              | .37     | .348 | .186 | .14 |
| 331205   | RN1/50S         | 1          | 50V     | 8 x 11 x 3.5              | .37     | .348 | .186 | .14 |
| 331133   | RN2.2/25S       | 2.2        | 25V     | 8 x 11 x 3.5              | .37     | .348 | .186 | .14 |
| 331213   | RN2.2/50S       | 2.2        | 50V     | 8 x 11 x 3.5              | .37     | .348 | .186 | .14 |
| 331141   | RN3.3/25S       | 3.3        | 25V     | 8 x 11 x 3.5              | .37     | .348 | .186 | .14 |
| 331221   | RN3.3/50S       | 3.3        | 50V     | 8 x 11 x 3.5              | .37     | .348 | .186 | .14 |
| 331151   | RN4.7/25S       | 4.7        | 25V     | 8 x 11 x 3.5              | .37     | .348 | .186 | .14 |
| 331230   | RN4.7/50S       | 4.7        | 50V     | 8 x 11 x 3.5              | .37     | .348 | .186 | .14 |

| Part No. | Cross Ref. No.† | Value (µF) | Voltage | Size (mm)<br>D x H x L.S. | Pricing |      |      |      |
|----------|-----------------|------------|---------|---------------------------|---------|------|------|------|
|          |                 |            |         |                           | 1       | 10   | 100  | 500  |
| 331168   | RN5.6/25S       | 5.6        | 25V     | 8 x 11 x 3.5              | .37     | .348 | .186 | .14  |
| 331248   | RN5.6/50S       | 5.6        | 50V     | 8 x 14 x 3.5              | .45     | .423 | .226 | .17  |
| 331176   | RN6.8/25S       | 6.8        | 25V     | 8 x 11 x 3.5              | .37     | .348 | .186 | .14  |
| 331256   | RN6.8/50S       | 6.8        | 50V     | 8 x 14 x 3.5              | .45     | .423 | .249 | .224 |
| 331184   | RN8.2/25S       | 8.2        | 25V     | 8 x 14 x 3.5              | .45     | .423 | .226 | .17  |
| 331264   | RN8.2/50S       | 8.2        | 50V     | 10 x 15 x 5.0             | .58     | .548 | .293 | .22  |
| 331192   | RN10/25S        | 10         | 25V     | 8 x 14 x 3.5              | .45     | .423 | .226 | .17  |
| 331272   | RN10/50S        | 10         | 50V     | 10 x 15 x 5.0             | .58     | .548 | .293 | .22  |

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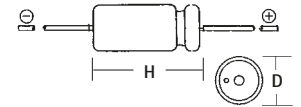


## Aluminum Axial-Lead Electrolytic Capacitors

General purpose 85°C maximum

Quantity SAVE

|  |                                     |
|--|-------------------------------------|
| Operating temperature range            | -40°C to +85°C                      |
| Leakage Current (After 2 minutes 20°C) | 0.02CV or 2µA, whichever is greater |



† CROSS REFERENCES: Elna: RE2; IC: RAR; Marcon: SEM; Nichicon: LB/VX; Rubycon: TWSS; Sprague: 501D/513D; UCC: SME; Panasonic: SU

Blue Part No. = Limited Quantity Available

\* Prepackaged: please order in increments of 10

Blue Part No. = Limited Quantity Available

| Part No. | Cross Ref. No.† | Value (µF) | Voltage | Size (mm)<br>DxH | Pricing |      |      |      |
|----------|-----------------|------------|---------|------------------|---------|------|------|------|
|          |                 |            |         |                  | 1       | 10   | 100  | 500  |
| 10868    | A1/50           | 1          | 50V     | 5 x 13           | * .15   | .104 | .078 |      |
| 11078    | A4.7/50         | 4.7        | 50V     | 6 x 13           | * .11   | .097 | .073 |      |
| 331301   | AB4.7/63        | 4.7        | 63V     | 6 x 12           | .23     | .197 | .143 | .105 |
| 199260   | A10J/25         | 10         | 25V     | 5 x 12           | .20     | .174 | .15  | .139 |
| 93578    | A10/35          | 10         | 35V     | 6 x 13           | * .133  | .107 | .08  |      |
| 10883    | A10/50          | 10         | 50V     | 6 x 12           | * .167  | .14  | .105 |      |
| 331311   | AB10/63         | 10         | 63V     | 6 x 12           | * .15   | .128 | .096 |      |
| 331424   | AB10/450        | 10         | 450V    | 13 x 25          | 1.08    | .99  | .89  | .67  |
| 199267   | A22J/25         | 22         | 25V     | 6 x 12           | .22     | .197 | .141 | .105 |
| 10999    | A22/50          | 22         | 50V     | 6 x 12           | * .19   | .14  | .11  |      |
| 331328   | AB22/63         | 22         | 63V     | 8 x 12           | .22     | .198 | .158 | .119 |
| 331433   | AB22/450        | 22         | 450V    | 16 x 26          | 1.99    | 1.66 | 1.51 | 1.37 |
| 199179   | A47J/16         | 47         | 16V     | 6.3 x 12         | .20     | .134 | .114 | .085 |
| 135321   | A47/25          | 47         | 25V     | 8 x 16           | * .15   | .14  | .096 |      |
| 11107    | A47/50          | 47         | 50V     | 8 x 16           | * .19   | .14  | .11  |      |
| 331336   | AB47/63         | 47         | 63V     | 8 x 16           | .19     | .171 | .145 | .108 |
| 331361   | AB47/100        | 47         | 100V    | 10 x 17          | .34     | .273 | .218 | .163 |
| 331395   | AB47/160        | 47         | 160V    | 13 x 21          | .75     | .57  | .368 | .331 |
| 331441   | AB47/450        | 47         | 450V    | 16 x 30          | 3.25    | 2.74 | 2.49 | 2.26 |
| 199187   | A100J/16        | 100        | 16V     | 6.3 x 16         | .24     | .22  | .19  | .16  |
| 199284   | A100J/25        | 100        | 25V     | 8 x 16           | .25     | .20  | .18  | .15  |
| 10912    | A100/50         | 100        | 50V     | 8 x 20           | .31     | .28  | .26  | .23  |
| 331379   | AB100/100       | 100        | 100V    | 10 x 20          | .85     | .73  | .57  | .47  |
| 331408   | AB100/160       | 100        | 160V    | 16 x 26          | 1.79    | 1.53 | 1.22 | .91  |
| 331416   | AB100/250       | 100        | 250V    | 16 x 30          | 2.45    | 2.09 | 1.93 | 1.80 |
| 331299   | AB150/50        | 150        | 50V     | 10 x 17          | .96     | .86  | .69  | .518 |
| 199195   | A220J16         | 220        | 16V     | 8 x 16           | .20     | .18  | .152 | .114 |

| Part No. | Cross Ref. No.† | Value (µF) | Voltage | Size (mm)<br>DxH | Pricing |      |      |      |
|----------|-----------------|------------|---------|------------------|---------|------|------|------|
|          |                 |            |         |                  | 1       | 10   | 100  | 500  |
| 199291   | A220J/25        | 220        | 25V     | 8 x 16           | .30     | .27  | .241 | .221 |
| 199363   | A220J/35        | 220        | 35V     | 10 x 17          | .26     | .23  | .195 | .146 |
| 11018    | AB20/50         | 220        | 50V     | 10 x 17          | .26     | .235 | .216 | .194 |
| 331352   | AB220/63        | 220        | 63V     | 10 x 20          | .55     | .461 | .369 | .277 |
| 199372   | A330J/35        | 330        | 35V     | 10 x 17          | .44     | .367 | .333 | .25  |
| 199216   | A470J/16        | 470        | 16V     | 8 x 16           | .34     | .273 | .245 | .184 |
| 199312   | A470J/25        | 470        | 25V     | 10 x 17          | .40     | .36  | .288 | .216 |
| 199381   | A470J/35        | 470        | 35V     | 10 x 21          | .50     | .404 | .371 | .278 |
| 11122    | A470/50         | 470        | 50V     | 13 x 21          | .59     | .49  | .42  | .34  |
| 331281   | AB1000/10       | 1000       | 10V     | 10 x 17          | .51     | .414 | .331 | .248 |
| 93632    | A1000/16        | 1000       | 16V     | 10 x 20          | .51     | .46  | .42  | .347 |
| 10956    | A1000/25        | 1000       | 25V     | 10 x 20          | .66     | .54  | .49  | .38  |
| 93651    | A1000/35        | 1000       | 35V     | 13 x 25          | .94     | .83  | .66  | .545 |
| 147258   | A1000/50        | 1000       | 50V     | 16 x 25          | .88     | .77  | .66  | .545 |
| 199321   | A2200J/25       | 2200       | 25V     | 16 x 28          | 1.09    | .90  | .78  | .59  |
| 93658    | A2200/35        | 2200       | 35V     | 16 x 30          | 1.25    | 1.10 | .99  | .85  |
| 199478   | A2200J/50       | 2200       | 50V     | 18 x 42          | 2.15    | 1.93 | 1.54 | 1.15 |
| 93666    | A3300/25        | 3300       | 25V     | 16 x 32          | 1.10    | .99  | .88  | .66  |
| 199398   | A3300J/35       | 3300       | 35V     | 18 x 37          | 3.39    | 2.93 | 2.29 | 1.72 |
| 199487   | A3300J/50       | 3300       | 50V     | 22 x 43          | 2.19    | 1.96 | 1.77 | 1.59 |
| 199232   | A4700J/16       | 4700       | 16V     | 16 x 30          | 1.45    | 1.30 | 1.04 | .78  |
| 93675    | A4700/25        | 4700       | 25V     | 16 x 30          | 1.69    | 1.49 | 1.29 | .99  |
| 199401   | A4700J/35       | 4700       | 35V     | 18 x 40          | 2.79    | 2.51 | 2.01 | 1.51 |
| 158811   | A4700A50        | 4700       | 50V     | 25 x 43          | 2.79    | 2.29 | 2.09 | 1.79 |
| 199241   | A6800J/16       | 6800       | 16V     | 16 x 33          | 1.24    | 1.11 | 1.00 | .90  |
| 199339   | A6800J/25       | 6800       | 25V     | 18 x 40          | 2.35    | 2.12 | 1.69 | 1.27 |
| 93682    | A10000/16       | 10000      | 16V     | 16 x 33          | 2.49    | 2.28 | 1.83 | 1.32 |

RoHS compliant product

This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.

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**JAMECO** ValuePro

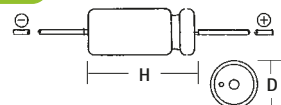
**A JAMECO  
EXCLUSIVE**

## Aluminum Axial-Lead Electrolytic Capacitors

General purpose 85°C maximum

**Quantity SAVE**


|  |                                     |
|--|-------------------------------------|
| Operating temperature range            | -40°C to +85°C                      |
| Leakage Current (After 2 minutes 20°C) | 0.02CV or 2µA, whichever is greater |



† CROSS REFERENCES: Elna: RE2; IC: RAR; Marcon: SEM; Nichicon: LB/VX; Rubycon: TWSS; Sprague: 501D/513D; UCC: SME; Panasonic: SU

### Other Manufacturers — Great Deals\*

| * Prepackaged: please order in increments of 10 |                 |            |         |               |         |      |      |      |  |
|---|-----------------|------------|---------|---------------|---------|------|------|------|--|
| Part No.  | Cross Ref. No.† | Value (µF) | Voltage | Size (mm) DxH | Pricing |      |      |      |  |
|   |                 |            |         |               | 1       | 10   | 100  | 500  |  |
| 10866   | A1/50           | 1          | 50V     | 5 x 13        | * .111  | .094 | .07  |      |  |
| 11076   | A4.7/50         | 4.7        | 50V     | 6 x 13        | * .162  | .117 | .099 |      |  |
| 93577   | A10/35          | 10         | 35V     | 6 x 13        | * .155  | .132 | .099 |      |  |
| 10882   | A10/50          | 10         | 50V     | 6 x 12        | * .15   | .12  | .08  |      |  |
| 10997   | A22/50          | 22         | 50V     | 6 x 12        | * .17   | .126 | .09  |      |  |
| 135319  | A47/25          | 47         | 25V     | 8 x 16        | .25     | .135 | .115 | .086 |  |
| 11105   | A47/50          | 47         | 50V     | 8 x 16        | .21     | .19  | .14  | .10  |  |
| 93551   | A100/35         | 100        | 35V     | 8 x 16        | .27     | .22  | .19  | .15  |  |
| 10911   | A100/50         | 100        | 50V     | 8 x 20        | .27     | .239 | .191 | .143 |  |

| Part No. | Cross Ref. No.† | Value (µF) | Voltage | Size (mm) DxH | Pricing |        |        |         |  |
|----------|-----------------|------------|---------|---------------|---------|--------|--------|---------|--|
|          |                 |            |         |               | 1       | 10     | 100    | 500     |  |
| 11121    | A470/50         | 470        | 50V     | 13 x 31       | \$ .99  | \$ .89 | \$ .71 | \$ .532 |  |
| 93631    | A1000/16        | 1000       | 16V     | 13 x 27       | .46     | .41    | .38    | .36     |  |
| 10954    | A1000/25        | 1000       | 25V     | 13 x 31       | .52     | .456   | .365   | .306    |  |
| 93649    | A1000/35        | 1000       | 35V     | 13 x 26       | .49     | .44    | .35    | .263    |  |
| 147256   | A1000/50        | 1000       | 50V     | 16 x 31       | .79     | .69    | .59    | .49     |  |
| 11033    | A2200/16        | 2200       | 16V     | 16 x 40       | .79     | .71    | .65    | .59     |  |
| 93665    | A3300/25        | 3300       | 25V     | 16 x 32       | 1.19    | 1.07   | .95    | .83     |  |
| 93673    | A4700/25        | 4700       | 25V     | 22 x 39       | 1.55    | 1.34   | 1.16   | .89     |  |
| 93681    | A10000/16       | 10000      | 16V     | 22 x 51       | 2.25    | 2.05   | 1.85   | 1.49    |  |

\* Capacitor dimensions and styles may vary

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**A JAMECO  
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## Aluminum Axial-Lead Non-Polarized Electrolytic Capacitors

85°C – General purpose



| Part No. | Cross Ref. No.† | Value (µF) | Voltage | Size (mm) DxH | Pricing |         |         |         |  |
|----------|-----------------|------------|---------|---------------|---------|---------|---------|---------|--|
|          |                 |            |         |               | 1       | 10      | 100     | 500     |  |
| 331521   | AN1/50          | 1          | 50V     | 6 x 16        | \$ .35  | \$ .342 | \$ .266 | \$ .209 |  |
| 331635   | AN1/100         | 1          | 100V    | 6 x 16        | .37     | .32     | .264    | .198    |  |
| 331540   | AN2.2/50        | 2.2        | 50V     | 6 x 16        | .40     | .38     | .295    | .228    |  |
| 331547   | AN3.3/50        | 3.3        | 50V     | 6 x 16        | .35     | .315    | .248    | .186    |  |
| 331555   | AN4.7/50        | 4.7        | 50V     | 6 x 16        | .45     | .405    | .324    | .243    |  |
| 331643   | AN4.7/100       | 4.7        | 100V    | 6 x 16        | .58     | .50     | .42     | .315    |  |
| 331483   | AN10/25         | 10         | 25V     | 6 x 16        | .39     | .35     | .28     | .21     |  |
| 331563   | AN10/50         | 10         | 50V     | 6 x 16        | .57     | .513    | .41     | .307    |  |
| 331651   | AN10/100        | 10         | 100V    | 8 x 16        | .62     | .535    | .45     | .338    |  |
| 331459   | AN22/16         | 22         | 16V     | 6 x 16        | .39     | .351    | .281    | .211    |  |
| 331491   | AN22/25         | 22         | 25V     | 6 x 16        | .43     | .387    | .31     | .232    |  |
| 331571   | AN22/50         | 22         | 50V     | 6 x 16        | .63     | .547    | .464    | .348    |  |
| 331627   | AN22/63         | 22         | 63V     | 8 x 16        | .63     | .55     | .46     | .345    |  |

| Part No. | Cross Ref. No.† | Value (µF) | Voltage | Size (mm) DxH | Pricing |        |        |         |  |
|----------|-----------------|------------|---------|---------------|---------|--------|--------|---------|--|
|          |                 |            |         |               | 1       | 10     | 100    | 500     |  |
| 331660   | AN22/100        | 22         | 100V    | 10 x 18       | \$ .86  | \$ .77 | \$ .62 | \$ .465 |  |
| 331580   | AN33/50         | 33         | 50V     | 8 x 16        | .69     | .62    | .50    | .375    |  |
| 331678   | AN33/100        | 33         | 100V    | 10 x 20       | .87     | .78    | .62    | .465    |  |
| 331504   | AN47/25         | 47         | 25V     | 6 x 16        | .51     | .459   | .367   | .275    |  |
| 331598   | AN47/50         | 47         | 50V     | 8 x 16        | .85     | .77    | .62    | .47     |  |
| 331686   | AN47/100        | 47         | 100V    | 10 x 21       | 1.39    | 1.25   | 1.00   | .75     |  |
| 331467   | AN100/16        | 100        | 16V     | 8 x 16        | .53     | .477   | .382   | .287    |  |
| 331512   | AN100/25        | 100        | 25V     | 8 x 20        | .57     | .513   | .41    | .307    |  |
| 331601   | AN100/50        | 100        | 50V     | 10 x 18       | .91     | .87    | .66    | .495    |  |
| 331694   | AN100/100       | 100        | 100V    | 13 x 25       | 2.35    | 2.12   | 1.91   | 1.72    |  |
| 331475   | AN220/16        | 220        | 16V     | 8 x 20        | .75     | .68    | .54    | .41     |  |
| 331619   | AN220/50        | 220        | 50V     | 13 x 25       | 1.15    | 1.00   | .84    | .63     |  |

**JAMECO** ValuePro

## Snap-Mount Large-Can Aluminum Electrolytic Capacitors (±20%)

- Designed as an input filter for switched mode power supply; standard 10mm (0.40") snap-in spacing
- Operating temperature range: (SNA) -40°C to +85°C; (SNB) -40°C to +105°C • Can-Top safety vent

† CROSS REFERENCES: Aero M: LP/LPR; Elna: LP3/LP4; Illinois Capacitor: LBA/LPR; Mallory: LPX; Marcon: CEAWF;

Nichicon: LLK/LLQ; Panasonic: TS-UP/TS-U; Phillips (MEPCO): 3487/3489; Rubycon: RSP; Sprague: 80D/82D; United Chemicon: SMG(VN)/SMH(VN)

**A JAMECO  
EXCLUSIVE**
**Snap-Ins!**

115422



| Part No. | Cross Ref. No.† | Value (µF) | Voltage | Size (mm) D x H | Pricing |        |        |  |
|----------|-----------------|------------|---------|-----------------|---------|--------|--------|--|
|          |                 |            |         |                 | 1       | 10     | 100    |  |
| 331838   | SNA68/450       | 68         | 450V    | 22 x 30         | \$2.55  | \$2.12 | \$1.59 |  |
| 331926   | SNB100/200      | 100        | 200V    | 30 x 40         | 1.95    | 1.50   | .81    |  |
| 331846   | SNA120/450      | 120        | 450V    | 22 x 40         | 3.19    | 2.33   | 1.52   |  |
| 331766   | SNA220/200      | 220        | 200V    | 22 x 27         | 1.89    | 1.42   | .91    |  |
| 331934   | SNB220/200      | 220        | 200V    | 22 x 27         | 2.19    | 1.81   | 1.36   |  |
| 331791   | SNA220/250      | 220        | 250V    | 22 x 36         | 2.35    | 1.65   | 1.02   |  |
| 332013   | SNB220/250      | 220        | 250V    | 22 x 36         | 1.99    | 1.89   | 1.25   |  |
| 331775   | SNA330/200      | 330        | 200V    | 25 x 35         | 2.55    | 1.49   | 1.29   |  |
| 331942   | SNB330/200      | 330        | 200V    | 25 x 30         | 1.75    | 1.66   | 1.37   |  |
| 331803   | SNA330/250      | 330        | 250V    | 22 x 36         | 1.95    | 1.74   | 1.41   |  |
| 332021   | SNB330/250      | 330        | 250V    | 22 x 36         | 2.25    | 1.91   | 1.44   |  |
| 203246   | SN330/400       | 330        | 400V    | 30 x 46         | 4.25    | 3.61   | 2.70   |  |
| 331862   | SNA330/450      | 330        | 450V    | 35 x 48         | 6.15    | 5.32   | 2.94   |  |
| 331951   | SNB470/200      | 470        | 200V    | 22 x 41         | 1.99    | 1.69   | 1.26   |  |
| 331811   | SNA470/250      | 470        | 250V    | 25 x 40         | 3.05    | 2.30   | 1.43   |  |
| 332030   | SNB470/250      | 470        | 250V    | 25 x 40         | 2.35    | 1.96   | 1.47   |  |
| 203263   | SN470/400/5     | 470        | 450V    | 35 x 51         | 8.25    | 7.60   | 5.69   |  |
| 331782   | SNA560/200      | 560        | 200V    | 25 x 36         | 2.99    | 2.12   | 1.22   |  |
| 331969   | SNB560/200      | 560        | 200V    | 25 x 36         | 3.35    | 2.01   | 1.40   |  |

| Part No. | Cross Ref. No.† | Value (µF) | Voltage | Size (mm) D x H | Pricing |        |        |  |
|----------|-----------------|------------|---------|-----------------|---------|--------|--------|--|
|          |                 |            |         |                 | 1       | 10     | 100    |  |
| 332048   | SNA560/250      | 560        | 250V    | 30 x 40         | \$2.95  | \$2.80 | \$2.10 |  |
| 331977   | SNB680/200      | 680        | 200V    | 25 x 40         | 3.05    | 2.59   | 2.28   |  |
| 331820   | SNA680/250      | 680        | 250V    | 25 x 48         | 3.79    | 2.86   | 1.77   |  |
| 332056   | SNB680/250      | 680        | 250V    | 25 x 48         | 3.89    | 2.89   | 2.08   |  |
| 331985   | SNB820/200      | 820        | 200V    | 25 x 48         | 3.19    | 2.71   | 2.03   |  |
| 332064   | SNB820/250      | 820        | 250V    | 30 x 48         | 4.35    | 3.70   | 2.77   |  |
| 331993   | SNB1000/200     | 1,000      | 200V    | 30 x 40         | 4.39    | 3.80   | 2.10   |  |
| 331890   | SNB3300/50      | 3,300      | 50V     | 25 x 23         | 2.59    | 2.29   | 2.09   |  |
| 331740   | SNA3300/80      | 3,300      | 80V     | 22 x 48         | 2.35    | 2.23   | 1.67   |  |
| 331898   | SNA4700/50      | 4,700      | 50V     | 25 x 30         | 2.19    | 1.99   | 1.79   |  |
| 115422   | SN4700/50       | 4,700      | 50V     | 30 x 41         | 2.19    | 2.00   | 1.50   |  |
| 331723   | SNA4700/63      | 4,700      | 63V     | 25 x 40         | 3.29    | 2.86   | 2.54   |  |
| 331900   | SNB6800/50      | 6,800      | 50V     | 25 x 40         | 2.69    | 2.40   | 1.82   |  |
| 331759   | SNA8200/80      | 8,200      | 80V     | 35 x 53         | 6.35    | 4.76   | 2.95   |  |
| 331707   | SNA10000/16     | 10,000     | 16V     | 22 x 30         | 3.29    | 1.90   | 1.34   |  |
| 331901   | SNB10000/50     | 10,000     | 50V     | 25 x 41         | 2.69    | 2.40   | 1.99   |  |
| 157737   | SNA10000/50     | 10,000     | 50V     | 35 x 40         | 4.95    | 4.10   | 3.99   |  |
| 331732   | SNA10000/63     | 10,000     | 63V     | 35 x 40         | 5.49    | 4.45   | 3.94   |  |
| 331716   | SNA15000/25     | 15,000     | 25V     | 25 x 40         | 2.65    | 2.35   | 1.78   |  |

### Other Manufacturers — Great Deals\*

|        |             |     |      |         |        |        |        |  |
|--------|-------------|-----|------|---------|--------|--------|--------|--|
| 203254 | SN470/400/4 | 470 | 400V | 35 x 41 | \$6.35 | \$5.40 | \$4.05 |  |
| 155889 | SN560/200   | 560 | 200V | 23 x 41 | \$2.49 | \$2.12 | \$1.59 |  |

\* Capacitor dimensions may vary

† Blue Part No. = Limited Quantity Available

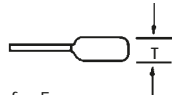
RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

# Mylar, Memory Back-Up & Dipped Tantalum Capacitors

## Mylar Capacitors (±10%)

### Metalized Polyester Film Capacitors

- High performance at low cost
- Non-inductive construction
- Operating temp. range: -40°C to +85°C
- Dissipation factor: ≤0.01 (at 1kHz)
- Dielectric strength: 150% of rated voltage for 5 sec



**Quantity SAVE**

† Cross References: Panasonic: ECQ-E Series; Sprague: DF/450P/451P/453P; Westlake: 160/168/ 185/167/184/186; Rubycon: MC/MN; Mepeco: 713A1/719A1/ C280; TRW: X601PE/ X601CPE; Packtron: MF/RB; Secor: MMKS/MMKR/MMDR; RIFA: PHE353/ PHE354; Roederstein: MKT 1818/MKT 1822; WIMA: MKS; CSF Thompson: MD/ MC; Siemens: B325X-XX; NIC: NEM/NRM; Nichicon: DDXM; Phillips: 712 A1 series

\* Prepackaged: please order in increments of 10

| Part No. | Cross Ref. No. † | Value (µF) | Volt. (V) | Size (mm) L x T x H | Pricing |      |      |      |
|----------|------------------|------------|-----------|---------------------|---------|------|------|------|
|          |                  |            |           |                     | 1       | 10   | 100  | 1000 |
| 26833    | MY.001           | .001       | 100       | 7.0 x 3.0 x 7.0     | * .092  | .062 | .048 |      |
| 26868    | MY.0022          | .0022      | 100       | 6.0 x 3.0 x 10.0    | * .055  | .05  | .038 |      |
| 26876    | MY.0047          | .0047      | 100       | 6.0 x 3.0 x 9.0     | * .14   | .119 | .107 |      |
| 26884    | MY.01            | .01        | 100       | 6.0 x 3.0 x 7.0     | * .13   | .096 | .091 |      |
| 26905    | MY.022           | .022       | 100       | 6.0 x 3.0 x 10.0    | * .13   | .095 | .071 |      |
| 26921    | MY.033           | .033       | 100       | 8.0 x 4.0 x 11.0    | * .11   | .088 | .084 |      |
| 207861   | MY.033/400       | .033       | 400       | 11.0 x 4.0 x 8.0    | .36     | .245 | .144 | .108 |
| 26930    | MY.047           | .047       | 100       | 8.0 x 4.0 x 12.0    | * .13   | .111 | .083 |      |
| 135562   | MY.1/50          | .1         | 50        | 14.0 x 6.0 x 12.0   | * .14   | .12  | .094 |      |
| 26956    | MY.1             | .1         | 100       | 12.5 x 5.0 x 9.5    | .27     | .233 | .185 | .119 |
| 93921    | MY.1/250         | .1         | 250       | 12.5 x 5.5 x 10     | * .17   | .14  | .122 |      |
| 26972    | MY.22            | .22        | 100       | 12.5 x 5.5 x 10     | .21     | .19  | .12  | .085 |
| 93964    | MY.33/250        | .33        | 250       | 18.0 x 7.0 x 12.5   | .27     | .24  | .22  | .17  |
| 26999    | MY.47            | .47        | 100       | 18.0 x 6.0 x 11.5   | .26     | .207 | .166 | .124 |
| 27001    | MY1              | 1.0        | 100       | 18.0 x 7.5 x 14.0   | .56     | .447 | .333 | .316 |
| 93981    | MY1/250          | 1.0        | 250       | 26.0 x 9.0 x 16.0   | .53     | .38  | .33  | .25  |
| 93999    | MY2.2/250        | 2.2        | 250       | 26.0 x 9.0 x 16.0   | .92     | .75  | .62  | .535 |

† ±20% tolerance \* Capacitor dimensions and styles may vary

JAMECO ValuePro

## Memory Back-Up Capacitors

Applications: • Memory back-up of remote controllers  
• Back-up on CMOS microcomputers, static RAM, DTSs (digital tuning systems)

Features:

- Small size vs. capacitance
- Volt.: 5.5VDC
- Excellent volt. holding characteristics for low back-up currents



| Part No. | Cross Ref. No. | Value (Farad) | Size (mm) L x T x Dia. | 1      | 10     | 100    |
|----------|----------------|---------------|------------------------|--------|--------|--------|
| 142949   | MBC.22/5.5     | .22           | 11.8 x 6.4 x 12.8      | \$2.09 | \$1.79 | \$1.41 |
| 143010   | MBC.47/5.5     | .47           | 13.3 x 9.2 x 21.1      | 3.29   | 2.86   | 2.42   |

Other Manufacturers — Great Deals\*

| Part No. | Cross Ref. No. | Value (Farad) | Size (mm) L x T x Dia. | 1      | 10     | 100    |
|----------|----------------|---------------|------------------------|--------|--------|--------|
| 142957   | MBC1.0/5.5     | 1.0           | —                      | \$4.29 | \$3.85 | \$3.49 |
| 227811   | SSR5V105       | 1.0           | 24.2 x 4.3 x 18.0      | 4.49   | 3.82   | 2.86   |

\* Capacitor dimensions and styles may vary

Blue Part No. = Limited Quantity Available

## NEC/TOKIN Memory Back-Up Capacitors

Lower \$\$\$

### FC Series

| Part No. | Product No. | Value (F) | Voltage (DC) | Size (in.) Dia. x H | Pricing |        |        |
|----------|-------------|-----------|--------------|---------------------|---------|--------|--------|
|          |             |           |              |                     | 1       | 10     | 100    |
| 1536851  | FC104ZF     | 0.1       | 5.5V         | 0.41 x 0.22         | \$2.19  | \$1.81 | \$1.44 |

### FG Series

| Part No. | Product No. | Value (F) | Voltage (DC) | Size (in.) Dia. x H | 1      | 10     | 100    |
|----------|-------------|-----------|--------------|---------------------|--------|--------|--------|
| 675753   | FG0H225ZF   | 2.2       | 5.5V         | 0.85 x 0.75         | \$3.95 | \$3.16 | \$2.54 |

### FS/FT Series

| Part No. | Product No. | Value (F) | Voltage (DC) | Size (in.) Dia. x H | 1      | 10     | 100    |
|----------|-------------|-----------|--------------|---------------------|--------|--------|--------|
| 675657   | FS0H104ZF   | 0.1       | 5.5V         | 0.65 x 0.34         | \$2.19 | \$1.81 | \$1.47 |
| 675665   | FS0H105ZF   | 1.0       | 5.5V         | 1.12 x 0.55         | 3.95   | 3.16   | 2.94   |
| 675673   | FS0H224ZF   | 0.22      | 5.5V         | 0.65 x 0.51         | 2.25   | 1.81   | 1.75   |
| 675681   | FS0H473ZF   | 0.047     | 5.5V         | 0.51 x 0.34         | 1.65   | 1.46   | 1.28   |
| 675690   | FS0H474ZF   | 0.47      | 5.5V         | 0.85 x 0.51         | 3.85   | 3.16   | 2.48   |
| 675702   | FT0H104ZF   | 0.1       | 5.5V         | 0.45 x 0.34         | 2.19   | 1.81   | 1.47   |

### FY Series

| Part No. | Product No. | Value (F) | Voltage (DC) | Size (in.) Dia. x H | 1      | 10     | 100    |
|----------|-------------|-----------|--------------|---------------------|--------|--------|--------|
| 675711   | FYD0H104ZF  | 0.1       | 5.5V         | 0.51 x 0.34         | \$2.19 | \$1.81 | \$1.47 |
| 675729   | FYD0H105ZF  | 1.0       | 5.5V         | 0.85 x 0.63         | 3.95   | 3.16   | 2.48   |
| 675737   | FYH0H105ZF  | 1.0       | 5.5V         | 1.12 x 0.43         | 3.95   | 3.16   | 2.66   |
| 675745   | FYH0H474ZF  | 0.47      | 5.5V         | 0.85 x 0.39         | 3.85   | 3.16   | 2.48   |



FC Series



FG, FS/FT, FY Series (Sizes vary)

## Dipped Tantalum Capacitors (±10%)

### Resin Dipped Solid Tantalum Capacitors

- Operating temp. range: -55°C to +85°C (+125°C with derating)
- Rated voltage DC: ≤ +85°C
- Low leakage current
- Exceptional temperature stability
- Moisture-resistant
- Flame retardant coating
- Designed for entertainment and commercial equipment

† Cross References: Panasonic: EF Series; AVX: Tap Series; Sprague: 196D and 199D; Matsuo: 202; Kemet: T350/ T360; Mepeco: 49GS; NEC: DN; Nichicon: 599; NIC: NDTM; Hitachi: TSD-3

| Part No. | Cross Ref. No. † | Value (µF) | Volt. (V) | Size (mm) D x H x L.S. | Pricing |      |      |      |
|----------|------------------|------------|-----------|------------------------|---------|------|------|------|
|          |                  |            |           |                        | 1       | 10   | 100  | 500  |
| 154861   | TM1/25           | .10        | 25        | 4.5 x 7 x 2.5          | .32     | .29  | .25  | .188 |
| 33488    | TM.1             | .10        | 35        | 4.5 x 7 x 2.5          | .28     | .25  | .19  | .15  |
| 332111   | TDR0.1/50        | .10        | 50        | 4.5 x 7 x 2.5          | .30     | .269 | .194 | .18  |
| 33508    | TM.22            | .22        | 35        | 4.5 x 7 x 2.5          | .27     | .25  | .19  | .143 |
| 545908   | TAP334K035SCS    | .33        | 35        | 4.3 x 7 x 2.5          | .26     | .224 | .202 | .194 |
| 33524    | TM.33            | .33        | 35        | 4.5 x 7 x 2.5          | .25     | .225 | .19  | .143 |
| 545916   | TAP334K050SCS    | .33        | 50        | 4.3 x 7 x 2.5          | .29     | .25  | .227 | .219 |
| 332128   | TDR0.33/50       | .33        | 50        | 4.5 x 7 x 2.5          | .39     | .351 | .227 | .17  |
| 546038   | TAP474K035SCS    | .47        | 35        | 4.3 x 7 x 2.5          | .26     | .224 | .202 | .194 |
| 33533    | TM.47            | .47        | 35        | 4.5 x 7 x 2.5          | .22     | .20  | .15  | .14  |
| 546046   | TAP474K050SCS    | .47        | 50        | 4.3 x 7 x 2.5          | .33     | .279 | .254 | .243 |
| 332137   | TDR0.47/50       | .47        | 50        | 4.5 x 7 x 2.5          | .39     | .351 | .24  | .18  |
| 546134   | TAP684K035SCS    | .68        | 35        | 4.3 x 7 x 2.5          | .26     | .247 | .202 | .194 |
| 61103    | TM.68            | .68        | 35        | 4.5 x 7 x 2.5          | .33     | .29  | .21  | .158 |
| 546142   | TAP684K050SCS    | .68        | 50        | 4.3 x 7 x 2.5          | .33     | .314 | .254 | .243 |
| 545588   | TAP105K025SCS    | .1         | 25        | 4.3 x 7 x 2.5          | .23     | .194 | .177 | .168 |
| 545596   | TAP105K035SCS    | .1         | 35        | 4.3 x 7 x 2.5          | .20     | .169 | .154 | .151 |
| 545561   | TAP104K035SCS    | .1         | 35        | 4 x 6 x 2.5            | .26     | .194 | .161 | .153 |
| 33663    | TM1              | .1         | 35        | 4.5 x 7 x 2.5          | .32     | .29  | .25  | .22  |
| 545609   | TAP105K050SCS    | .1         | 50        | 4.7 x 7.5 x 2.5        | .30     | .254 | .23  | .219 |
| 332145   | TDR1/50          | .1         | 50        | 8.0 x 5 x 2.5          | .34     | .30  | .216 | .203 |
| 545705   | TAP155K025SCS    | 1.5        | 25        | 4.3 x 7 x 2.5          | .26     | .224 | .202 | .194 |
| 545713   | TAP155K035SCS    | 1.5        | 35        | 4.3 x 7 x 2.5          | .30     | .257 | .234 | .219 |
| 94003    | TM2.2/16         | 2.2        | 16        | 4.5 x 7 x 2.5          | .21     | .19  | .16  | .12  |
| 33735    | TM2.2/35         | 2.2        | 35        | 5 x 8 x 2.5            | .39     | .35  | .32  | .284 |

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

| Color Code Legend        |
|--------------------------|
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JAMECO ValuePro

## Dipped Tantalum Capacitors (±10%)

Resin Dipped Solid Tantalum Capacitors

Quantity SAVE

A Jameco EXCLUSIVE

- Operating temp. range: -55°C to +85°C (+125°C with derating)
  - Rated voltage DC: ≤ +85°C
  - Low leakage current
  - Exceptional temperature stability
  - Moisture-resistant
  - Flame retardant coating
  - Designed for entertainment and commercial equipment
- † Cross References: Panasonic: EF Series; AVX: Tap Series; Sprague: 196D and 199D; Matsuo: 202; Kemet: T350/ T360; Mepco: 49GS; NEC: DN; Nichicon: 599; NIC: NDTM; Hitachi: TSD-3



| Part No. | Cross Ref. No. † | Value (µF) | Volt. (V) | Size (mm) D x H x L.S. | Pricing |        |        |        |
|----------|------------------|------------|-----------|------------------------|---------|--------|--------|--------|
|          |                  |            |           |                        | 1       | 10     | 100    | 500    |
| 545617   | TAP106K006SCS    | 10         | 6.3       | 4.3 x 7 x 2.5          | \$3.33  | \$2.79 | \$2.54 | \$2.43 |
| 545625   | TAP106K010SCS    | 10         | 10        | 4.7 x 7.5 x 2.5        | .42     | .253   | .224   | .213   |
| 94061    | TM10/16          | 10         | 16        | 5 x 8 x 2.5            | .45     | .39    | .29    | .25    |
| 545633   | TAP106K020SCS    | 10         | 20        | 5.4 x 8 x 2.5          | .50     | .423   | .384   | .365   |
| 545641   | TAP106K025SCS    | 10         | 25        | 5.4 x 8 x 2.5          | .58     | .498   | .395   | .389   |
| 94080    | TM10/25          | 10         | 25        | 5.5 x 9.5 x 2.5        | .59     | .50    | .40    | .36    |
| 545570   | TAP104K050SCS    | 10         | 50        | 4 x 6 x 2.5            | .31     | .269   | .227   | .219   |
| 545650   | TAP106K035SCS    | 10         | 35        | 5.4 x 8 x 2.5          | .81     | .77    | .68    | .62    |
| 33691    | TM10             | 10         | 35        | 5.5 x 11 x 2.5         | .89     | .79    | .69    | .59    |
| 332161   | TDR10/50         | 10         | 50        | 8.5 x 13 x 2.5         | 3.15    | 2.78   | 2.27   | 1.70   |
| 545721   | TAP156K010SCS    | 15         | 10        | 4.7 x 7.5 x 2.5        | .44     | .372   | .338   | .324   |
| 545730   | TAP156K016SCS    | 15         | 16        | 5.4 x 8 x 2.5          | .53     | .448   | .407   | .389   |
| 545748   | TAP156K020SCS    | 15         | 20        | 5.4 x 8 x 2.5          | .54     | .457   | .414   | .397   |
| 33719    | TM15             | 15         | 25        | 6.5 x 11 x 2.5         | .89     | .80    | .72    | .54    |
| 597468   | TAP156K035SCS    | 15         | 35        | 6 x 9.4 x 2.5          | 1.79    | 1.52   | 1.38   | 1.30   |
| 545692   | TAP154K035SCS    | 15         | 35        | 4 x 6 x 2.5            | .26     | .224   | .202   | .194   |
| 545836   | TAP226K006SCS    | 22         | 6.3       | 4.7 x 7.5 x 2.5        | .44     | .372   | .338   | .324   |
| 545844   | TAP226K010SCS    | 22         | 10        | 5.4 x 8 x 2.5          | .50     | .423   | .384   | .365   |
| 545852   | TAP226K016SCS    | 22         | 16        | 5.4 x 8 x 2.5          | .40     | .338   | .307   | .305   |
| 94095    | TM22/16          | 22         | 16        | 5.5 x 9.5 x 2.5        | .69     | .59    | .49    | .45    |
| 545861   | TAP226K020SCS    | 22         | 20        | 6 x 9.4 x 2.5          | 1.01    | .86    | .77    | .73    |
| 545879   | TAP226K025SCS    | 22         | 25        | 6 x 9.4 x 2.5          | 1.75    | 1.27   | 1.15   | 1.08   |
| 545887   | TAP226K035SCS    | 22         | 35        | 7 x 11 x 2.5           | 1.39    | 1.18   | 1.07   | 1.05   |
| 332101   | TDR22/35         | 22         | 35        | 8.5 x 13 x 2.5         | 2.15    | 1.85   | 1.25   | .94    |

| Part No. | Cross Ref. No. † | Value (µF) | Volt. (V) | Size (mm) D x H x L.S. | Pricing |        |        |        |
|----------|------------------|------------|-----------|------------------------|---------|--------|--------|--------|
|          |                  |            |           |                        | 1       | 10     | 100    | 500    |
| 545975   | TAP336K006SCS    | 33         | 6.3       | 5.4 x 8 x 2.5          | \$4.47  | \$3.97 | \$3.61 | \$3.34 |
| 545983   | TAP336K010SCS    | 33         | 10        | 5.4 x 8 x 2.5          | .58     | .491   | .446   | .421   |
| 545991   | TAP336K016SCS    | 33         | 16        | 6 x 9.4 x 2.5          | 1.03    | .87    | .78    | .75    |
| 546003   | TAP336K020SCS    | 33         | 20        | 6 x 9.4 x 2.5          | 1.45    | 1.23   | 1.12   | 1.05   |
| 546011   | TAP336K025SCS    | 33         | 25        | 6 x 9.4 x 2.5          | 1.89    | 1.60   | 1.45   | 1.38   |
| 33786    | TM33             | 33         | 25        | 8.5 x 13 x 2.5         | 2.35    | 2.09   | 1.67   | 1.23   |
| 546020   | TAP336K035SCS    | 33         | 35        | 8.2 x 12.5 x 2.5       | 3.15    | 2.67   | 2.43   | 2.28   |
| 546100   | TAP476K010SCS    | 47         | 10        | 6 x 9.4 x 2.5          | 1.03    | .98    | .79    | .75    |
| 546118   | TAP476K016SCS    | 47         | 16        | 6 x 9.4 x 2.5          | 1.59    | 1.52   | 1.22   | 1.14   |
| 94124    | TM47/16          | 47         | 16        | 6.5 x 11 x 2.5         | 1.69    | 1.55   | 1.35   | .95    |
| 33823    | TM47             | 47         | 25        | 9.5 x 16.5 x 2.5       | 3.39    | 3.05   | 2.59   | 1.94   |
| 546126   | TAP476K035SCS    | 47         | 35        | 8.2 x 12.5 x 5         | 5.55    | 5.28   | 3.76   | 3.58   |
| 546206   | TAP686K006SCS    | 68         | 6.3       | 6 x 9.4 x 2.5          | .62     | .59    | .476   | .454   |
| 546214   | TAP686K010SCS    | 68         | 10        | 6 x 9.4 x 2.5          | 1.49    | 1.42   | 1.15   | 1.08   |
| 546222   | TAP686K016SCS    | 68         | 16        | 7 x 11 x 2.5           | 1.95    | 1.85   | 1.48   | 1.39   |
| 546231   | TAP686K020SCS    | 68         | 20        | 8.2 x 12.5 x 5         | 4.09    | 3.89   | 3.14   | 2.95   |
| 332099   | TDR68/25         | 68         | 25        | 9.5 x 16.5 x 2.5       | 6.55    | 5.89   | 4.72   | 3.53   |
| 545668   | TAP107K006SCS    | 100        | 6.3       | 6.0 x 9.4 x 2.5        | 1.31    | 1.12   | 1.01   | .96    |
| 33702    | TM100            | 100        | 6.3       | 8.5 x 13 x 2.5         | 1.19    | 1.09   | .95    | .85    |
| 597450   | TAP107K016SCS    | 100        | 16        | 7 x 11 x 2.5           | 4.09    | 3.46   | 3.14   | 2.95   |
| 545684   | TAP107K020SCS    | 100        | 20        | 8.2 x 12.5 x 2.5       | 4.69    | 3.97   | 3.61   | 3.43   |
| 545764   | TAP157K006SCS    | 150        | 6.3       | 7 x 11 x 2.5           | 1.95    | 1.63   | 1.48   | 1.39   |
| 545772   | TAP157K010SCS    | 150        | 10        | 7 x 11 x 2.5           | 3.79    | 3.22   | 2.92   | 2.74   |
| 545895   | TAP227K010SCS    | 220        | 10        | 8.2 x 12.5 x 2.5       | 4.69    | 3.97   | 3.61   | 3.43   |

## Other Manufacturers — Great Deals\*

|        |          |     |    |           |        |        |        |        |
|--------|----------|-----|----|-----------|--------|--------|--------|--------|
| 33486  | TM.1     | .10 | 35 | 4.5 x 7   | \$2.23 | \$2.25 | \$1.71 | \$1.35 |
| 33507  | TM.22    | .22 | 35 | 4.5 x 7   | .27    | .237   | .184   | .137   |
| 33523  | TM.33    | .33 | 35 | 4.5 x 7   | .28    | .209   | .167   | .125   |
| 33531  | TM.47    | .47 | 35 | 4.5 x 7   | .20    | .18    | .135   | .126   |
| 154860 | TM1/25   | 1   | 25 | 4.5 x 7   | .28    | .252   | .202   | .152   |
| 33662  | TM1      | 1   | 35 | 4.5 x 7   | .29    | .261   | .225   | .198   |
| 94001  | TM2.2/16 | 2.2 | 16 | 4.5 x 7   | .29    | .24    | .176   | .132   |
| 94019  | TM2.2/25 | 2.2 | 25 | 4.5 x 7   | .29    | .24    | .20    | .15    |
| 33769  | TM3.3    | 3.3 | 35 | 5 x 8     | .42    | .356   | .285   | .214   |
| 94035  | TM4.7/16 | 4.7 | 16 | 5 x 8     | .34    | .31    | .27    | .20    |
| 94043  | TM4.7/25 | 4.7 | 25 | 5 x 8     | .44    | .396   | .297   | .18    |
| 33806  | TM4.7    | 4.7 | 35 | 5.5 x 9.5 | .41    | .378   | .333   | .243   |

|       |         |     |     |            |        |        |        |        |
|-------|---------|-----|-----|------------|--------|--------|--------|--------|
| 33873 | TM6.8   | 6.8 | 35  | 6.5 x 11   | \$5.52 | \$4.44 | \$3.52 | \$2.64 |
| 94060 | TM10/16 | 10  | 16  | 5.0 x 8    | .41    | .351   | .261   | .225   |
| 94078 | TM10/25 | 10  | 25  | 5.5 x 9.5  | .53    | .45    | .36    | .324   |
| 33689 | TM10    | 10  | 35  | 6.5 x 11   | .80    | .71    | .62    | .53    |
| 33718 | TM15    | 15  | 25  | 6.5 x 11   | .80    | .72    | .65    | .58    |
| 33751 | TM22    | 22  | 6.3 | 5.5 x 9.5  | .49    | .44    | .35    | .26    |
| 94094 | TM22/16 | 22  | 16  | 5.5 x 9.5  | .62    | .53    | .441   | .405   |
| 94107 | TM22/25 | 22  | 25  | 8.5 x 13   | 1.59   | 1.45   | .89    | .79    |
| 33785 | TM33    | 33  | 25  | 8.5 x 13   | 2.09   | 1.89   | 1.45   | .95    |
| 94123 | TM47/16 | 47  | 16  | 6.5 x 11   | 1.55   | 1.39   | 1.25   | .86    |
| 33822 | TM47    | 47  | 25  | 9.5 x 16.5 | 3.05   | 2.75   | 2.09   | 1.65   |
| 33700 | TM100   | 100 | 6.3 | 8.5 x 13   | 1.09   | .98    | .79    | .59    |

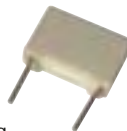
\*Capacitor dimensions and styles may vary

CDE

## Metallized Polyester Radial-Lead Capacitors

### Type 167/184 ±5%

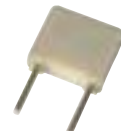
- Rugged plastic case
- 7.5mm (0.3") lead spacing
- Case and epoxy fill meets UL94V-0
- Length: 10.5mm
- Operating temperature range: -55°C to 125°C
- Non-polarized
- Dielectric withstanding voltage: 1.6 x rated voltage for 2 seconds
- Good for general purpose applications such as bypass, decoupling, energy storage/discharge and arc suppression
- Non-inductively wound



| Part No. | Product No. | Value (µF) | Volt. (VDC/VAC) | Th. x H (mm) | 1      | 10     | 100    | 500    |
|----------|-------------|------------|-----------------|--------------|--------|--------|--------|--------|
| 528391   | 167104J63A  | 0.10       | 63/40           | 3.5 x 7      | \$4.45 | \$4.40 | \$3.81 | \$3.63 |
| 528382   | 167104J100A | 0.10       | 100/63          | 3.5 x 7      | .37    | .353   | .334   | .292   |
| 528403   | 167224J100C | 0.22       | 100/63          | 5 x 11       | .52    | .492   | .467   | .315   |
| 528366   | 167103J250A | 0.01       | 250/160         | 3.5 x 7      | .28    | .269   | .258   | .232   |
| 528374   | 167103J400A | 0.01       | 400/200         | 3.5 x 7      | .46    | .435   | .413   | .321   |
| 528358   | 167102J630A | 0.001      | 630/220         | 3.5 x 7      | .35    | .334   | .317   | .214   |

### Type 168/185 ±5%

- 5mm (0.197") lead spacing
- Non-inductively wound
- Rugged plastic case
- Length: 7.2mm
- Non-polarized
- Case and epoxy fill meets UL94V-0
- Low leakage
- Good for general purpose applications such as bypass, decoupling, energy storage/discharge and arc suppression



| Part No. | Product No. | Value (µF) | Volt. (VDC/VAC) | Th. x H (mm) | 1      | 10     | 100    | 500    |
|----------|-------------|------------|-----------------|--------------|--------|--------|--------|--------|
| 528438   | 168104J50A  | 0.10       | 50/30           | 2.5 x 6.5    | \$3.33 | \$2.93 | \$2.64 | \$2.38 |
| 528526   | 168334J50C  | 0.33       | 50/30           | 3.5 x 7.5    | .42    | .399   | .379   | .27    |
| 528462   | 168105J50G  | 1.00       | 50/30           | 6.0 x 11.0   | .81    | .77    | .73    | .514   |
| 528569   | 168473J63A  | 0.047      | 63/40           | 2.5 x 6.5    | .30    | .28    | .26    | .25    |
| 528446   | 168104J63A  | 0.10       | 63/40           | 2.5 x 6.5    | .29    | .27    | .24    | .238   |
| 528454   | 168104K63A  | 0.10       | 63/40           | 2.5 x 6.5    | .30    | .276   | .251   | .228   |
| 528497   | 168224J63C  | 0.22       | 63/40           | 3.5 x 7.5    | .38    | .36    | .342   | .304   |
| 528534   | 168334J63H  | 0.33       | 63/40           | 4.5 x 8.5    | .55    | .52    | .494   | .383   |
| 528577   | 168474J63H  | 0.47       | 63/40           | 4.5 x 8.5    | .51    | .482   | .458   | .324   |
| 528585   | 168474K63H  | 0.47       | 63/40           | 4.5 x 8.5    | .80    | .76    | .72    | .56    |
| 528411   | 168102J100A | 0.001      | 100/63          | 2.5 x 6.5    | .41    | .37    | .333   | .30    |
| 528471   | 168222J100A | 0.0022     | 100/63          | 2.5 x 6.5    | .32    | .289   | .26    | .25    |
| 528500   | 168332J100A | 0.0033     | 100/63          | 2.5 x 6.5    | .28    | .251   | .228   | .207   |
| 528542   | 168472J100A | 0.0047     | 100/63          | 2.5 x 6.5    | .28    | .256   | .233   | .213   |
| 528420   | 168103J100A | 0.010      | 100/63          | 2.5 x 6.5    | .29    | .27    | .24    | .238   |
| 528489   | 168223J100A | 0.022      | 100/63          | 2.5 x 6.5    | .31    | .28    | .26    | .249   |
| 528518   | 168333J100C | 0.033      | 100/63          | 3.5 x 7.5    | .30    | .28    | .266   | .228   |
| 528551   | 168473J100C | 0.047      | 100/63          | 3.5 x 7.5    | .36    | .33    | .29    | .28    |

† ±10% tolerance

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product ♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



## CDE Polyester & Polypropylene Film/Foil Capacitors

### Type PVC ±10%

- Rugged epoxy case material meets UL94V-0
- Crimped leads for secure PCB insertion
- Insulation resistance: polyester – 100,000MΩ
- Voltage range: polyester – 100VDC to 1000VDC; polypropylene – 1200VDC to 2000VDC for ≤0.25μF, 25,000MΩ >0.25μF; polypropylene – 400,000MΩ =< 0.50μF, 200,000MΩ ≥0.50μF
- Dielectric withstanding voltage: 250% rated voltage for <1000V, 200% rated voltage for ≥1000V
- Non-polarized
- Non-inductively wound

### 200VDC/140VAC, 60Hz

| Part No. | Product No. | Value (μF) | L x Dia. (mm) | Spacing | 1      | 10     | 100    | 1000   |
|----------|-------------|------------|---------------|---------|--------|--------|--------|--------|
| 536930   | PVC211▲     | 0.10       | 17.8 x 8.4    | 12.7mm  | \$1.09 | \$1.01 | \$ .91 | \$ .86 |
| 536921   | PVC201▲     | 0.10       | 30.5 x 10.2   | 24.6mm  | 1.69   | 1.53   | 1.38   | 1.24   |

### 400VDC/200VAC, 60Hz

| Part No. | Product No. | Value (μF) | L x Dia. (mm) | Spacing | 1      | 10     | 100    | 1000   |
|----------|-------------|------------|---------------|---------|--------|--------|--------|--------|
| 536948   | PVC401▲     | 0.10       | 30.5 x 13.5   | 24.6mm  | \$1.95 | \$1.74 | \$1.56 | \$1.40 |

### 600VDC/200VAC, 60Hz

| Part No. | Product No. | Value (μF) | L x Dia. (mm) | Spacing | 1      | 10     | 100    | 1000   |
|----------|-------------|------------|---------------|---------|--------|--------|--------|--------|
| 536981   | PVC611▲     | 0.01       | 22.9 x 10.2   | 17.5mm  | \$1.32 | \$1.18 | \$1.06 | \$ .95 |
| 536999   | PVC6147     | 0.047      | 30.5 x 14.2   | 24.6mm  | 1.01   | .83    | .81    | .79    |
| 536956   | PVC601▲     | 0.10       | 130.5 x 16.5  | 24.6mm  | 2.45   | 2.18   | 1.96   | 1.76   |
| 536964   | PVC6022▲    | 0.22       | 40.6 x 20.3   | 34.1mm  | 4.39   | 3.95   | 3.55   | 3.19   |
| 536972   | PVC6025▲    | 0.25       | 40.6 x 20.3   | 34.1mm  | 4.55   | 4.07   | 3.66   | 3.29   |

### 1000VDC/200VAC, 60Hz

| Part No. | Product No. | Value (μF) | L x Dia. (mm) | Spacing | 1      | 10     | 100    | 1000   |
|----------|-------------|------------|---------------|---------|--------|--------|--------|--------|
| 536884   | PVC10010▲   | 0.10       | 40.6 x 21.6   | 34.1mm  | \$3.55 | \$3.45 | \$3.27 | \$3.11 |

### 1600VDC/475VAC, 60Hz

| Part No. | Product No. | Value (μF) | L x Dia. (mm) | Spacing | 1      | 10     | 100    | 1000   |
|----------|-------------|------------|---------------|---------|--------|--------|--------|--------|
| 536892   | PVC1611▲    | 0.01       | 31.8 x 13.5   | 24.6mm  | \$1.85 | \$1.67 | \$1.50 | \$1.36 |
| 536905   | PVC16147▲   | 0.047      | 41.9 x 20.3   | 34.1mm  | 4.09   | 3.69   | 3.32   | 2.99   |

## CDE Radial Metallized Polyester RC Network for Transient Suppression Capacitors

### Type Q/QRL (Quencharc®) Arc Suppressor/ Snubber Network

- Noise and arc suppression
- Relay contact protection
- Type QRL – UL/CSA version
- Lead spacing: 20.8mm
- Capacitance tolerance: ±20%
- Resistor tolerance: ±10%
- Noise reduction on controllers and drives
- EMI/RFI reduction
- Operating temperature range: -55°C to 85°C
- RC snubber network
- Metallized polyester in series with a carbon composition resistor
- Dielectric withstanding voltage: 1.6 x DC rated voltage

527873: UL/CSA recognized across-the-line application, type QRL, complies with UL1414 CSA-22.2 No.1

### 200VDC/125VAC • Size: 27.4L x 9.4Th. x 16.3H mm

| Part No. | Product No. | Value (μF) | Resistor Value | 1      | 10     | 100    | 500    |
|----------|-------------|------------|----------------|--------|--------|--------|--------|
| 527881   | 105M020B47▲ | 1.0        | 1/2W; 100Ω     | \$5.19 | \$4.91 | \$3.61 | \$3.04 |

### 600VDC/250VAC • Size: 27.4L x 9.4Th. x 16.8H mm

| Part No. | Product No.  | Value (μF) | Resistor Value | 1      | 10     | 100    | 500    |
|----------|--------------|------------|----------------|--------|--------|--------|--------|
| 527857   | 104M06QC22▲  | 0.10       | 1/2W; 22Ω      | \$5.49 | \$4.95 | \$4.45 | \$4.01 |
| 527865   | 104M06QC47▲  | 0.10       | 1/2W; 47Ω      | 5.19   | 4.14   | 3.80   | 3.61   |
| 527831   | 104M06QC100▲ | 0.10       | 1/2W; 100Ω     | 5.05   | 4.61   | 4.19   | 3.81   |
| 527849   | 104M06QC150▲ | 0.10       | 1.2W; 150Ω     | 5.59   | 4.47   | 4.12   | 3.91   |

### Type QRL 125VAC • Size: 27.4L x 9.4Th. x 16.8H mm

| Part No. | Product No.   | Value (μF) | Resistor Value | 1      | 10     | 100    | 500    |
|----------|---------------|------------|----------------|--------|--------|--------|--------|
| 527873   | 104MACQRL150▲ | 0.10       | 1/2W; 150Ω     | \$4.55 | \$4.29 | \$3.16 | \$2.66 |

## Panasonic® Snap-In Capacitor

### T-UP Series Snap-In Capacitor

- Top vent construction
- 4-pin terminal provides stability and keyed polarity
- General purpose rated at 85°C, 3,000 hours
- Operating temperature range: -40°C to 85°C

| Part No. | Product No.   | Voltage | Capacitance Value | Dimension (mm) D x H | Pricing |         |         |
|----------|---------------|---------|-------------------|----------------------|---------|---------|---------|
|          |               |         |                   |                      | 1       | 10      | 100     |
| 857063   | ECE-T2GP102FA | 400     | 1000μF            | 40 x 60              | \$11.19 | \$10.84 | \$10.37 |

▲ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

## CDE Axial-Lead Metallized Polyester Capacitors

### Type 150 ±5%

- Flame retardant wrap and fill axial capacitors
- Epoxy end fill meets UL94V-0
- Flame retardant outer wrap meets UL510
- General purpose capacitor for use in blocking, bypass, decoupling, smoothing, and timing applications
- Non polarized
- Non-inductively wound

| Part No. | Product No.  | Value (μF) | Volts | L x Dia. (mm) | 1      | 10      | 100     | 500     |
|----------|--------------|------------|-------|---------------|--------|---------|---------|---------|
| 527911   | 150104J100AA | 0.10       | 100   | 11 x 5        | \$ .47 | \$ .444 | \$ .433 | \$ .422 |
| 527961   | 150224J100CB | 0.22       | 100   | 16.5 x 6.5    | .56    | .533    | .522    | .51     |
| 527970   | 150334J100EB | 0.33       | 100   | 16.5 x 8      | .55    | .52     | .494    | .451    |
| 527945   | 150105J100IC | 1.0        | 100   | 20.5 x 10     | .96    | .92     | .87     | .79     |
| 527988   | 150473J250AA | 0.047      | 250   | 11 x 5        | .53    | .479    | .435    | .396    |
| 527929   | 150104J250CB | 0.1        | 250   | 16.5 x 6.5    | .58    | .54     | .51     | .48     |
| 527996   | 150474J250HC | 0.47       | 250   | 20.5 x 9.5    | .70    | .66     | .63     | .58     |
| 527953   | 150105J250JE | 1.0        | 250   | 28 x 10.5     | 1.09   | 1.01    | .96     | .90     |
| 527902   | 150103J400AA | 0.010      | 400   | 11 x 5        | .39    | .367    | .349    | .318    |
| 527890   | 150102J630AA | 0.001      | 630   | 11 x 5        | .43    | .412    | .391    | .357    |
| 527937   | 150104J630FE | 0.10       | 630   | 28 x 8.5      | .90    | .85     | .81     | .74     |

## CDE Radial Snap-In Capacitors

### Type LP ±20%

- High reliability
- Stable ESR
- PVC sleeve insulation
- Small size, rated for low-voltage applications
- Polarized
- Ideal for use in switch-mode power supplies

| Part No. | Product No.    | Value (μF) | Volts | Dia. x L (mm) | 1      | 10     | 100    | 500    |
|----------|----------------|------------|-------|---------------|--------|--------|--------|--------|
| 535777   | LP101M250A1P3▲ | 100        | 200   | 22 x 25       | \$4.99 | \$4.72 | \$4.21 | \$3.37 |
| 535822   | LP151M200C1P3▲ | 150        | 200   | 25 x 25       | 1.99   | 1.76   | 1.58   | 1.42   |
| 535785   | LP102M200H9P3▲ | 1,000      | 200   | 35 x 50       | 7.15   | 6.23   | 4.85   | 4.61   |
| 535814   | LP122M050A1P3▲ | 1,200      | 50    | 22 x 25       | .90    | .79    | .76    | .72    |
| 535857   | LP222M050E1P3▲ | 2,200      | 50    | 30 x 25       | 4.75   | 3.99   | 3.24   | 2.73   |
| 535865   | LP222M063E3P3▲ | 2,200      | 63    | 30 x 30       | 1.99   | 1.88   | 1.38   | 1.10   |
| 535881   | LP272M035C1P3  | 2,700      | 35    | 25 x 25       | 2.95   | 2.71   | 2.46   | 2.24   |
| 535890   | LP332M050E3P3▲ | 3,300      | 50    | 30 x 30       | 5.79   | 5.48   | 4.89   | 3.91   |
| 535911   | LP472M016A1P3▲ | 4,700      | 16    | 22 x 25       | 3.29   | 2.84   | 2.65   | 2.49   |
| 535929   | LP472M050H3P3▲ | 4,700      | 50    | 35 x 30       | 2.49   | 2.32   | 1.70   | 1.35   |
| 535937   | LP472M063E9P3▲ | 4,700      | 63    | 30 x 50       | 5.95   | 5.07   | 4.53   | 4.04   |
| 535945   | LP682M050E9P3▲ | 6,800      | 50    | 30 x 50       | 4.95   | 4.31   | 4.09   | 3.89   |
| 535953   | LP682M063H9P3▲ | 6,800      | 63    | 35 x 50       | 6.29   | 5.99   | 5.19   | 4.94   |
| 535961   | LP822M035H3P3▲ | 8,200      | 35    | 35 x 30       | 2.85   | 2.47   | 2.34   | 2.22   |
| 535793   | LP103M025H3P3▲ | 10,000     | 25    | 35 x 30       | 2.49   | 2.32   | 1.71   | 1.36   |
| 535806   | LP103M035E7P3▲ | 10,000     | 35    | 30 x 40       | 3.99   | 3.79   | 3.27   | 3.11   |
| 535831   | LP153M016H3P3▲ | 15,000     | 16    | 35 x 30       | 8.35   | 7.15   | 6.39   | 5.70   |
| 535849   | LP153M035H9P3▲ | 15,000     | 35    | 35 x 50       | 6.49   | 5.54   | 4.95   | 4.42   |
| 535873   | LP222M025H9P3▲ | 22,000     | 25    | 35 x 50       | 5.85   | 5.09   | 4.83   | 4.59   |
| 535902   | LP332M016H9P3▲ | 33,000     | 16    | 35 x 50       | 12.15  | 10.38  | 9.27   | 8.28   |

### Type LPX ±20%

- Compact design for high density packaging
- Low voltage
- High capacitance
- Ideal for high voltage switch-mode power supply input filtering applications
- Polarized
- PVC insulating sleeve

| Part No. | Product No.     | Value (μF) | Volts | Dia. x L (mm) | 1      | 10     | 100    | 500    |
|----------|-----------------|------------|-------|---------------|--------|--------|--------|--------|
| 535970   | LPX101M400A3P3▲ | 100        | 400   | 22 x 30       | \$1.89 | \$1.78 | \$1.31 | \$1.20 |
| 535988   | LPX101M450C3P3▲ | 100        | 450   | 25 x 30       | 4.85   | 4.36   | 3.92   | 3.52   |
| 536016   | LPX221M400C7P3▲ | 220        | 400   | 25 x 40       | 3.65   | 3.45   | 2.53   | 2.00   |
| 536032   | LPX271M450E4P3▲ | 270        | 450   | 30 x 45       | 13.49  | 12.14  | 10.92  | 9.82   |
| 536041   | LPX331M250C3P3▲ | 330        | 250   | 25 x 30       | 3.49   | 3.09   | 2.99   | 2.84   |
| 536059   | LPX331M400E7P3▲ | 330        | 400   | 30 x 40       | 5.79   | 5.13   | 4.96   | 4.71   |
| 536067   | LPX331M450H7P3▲ | 330        | 450   | 35 x 40       | 7.29   | 6.93   | 5.08   | 4.03   |
| 536075   | LPX471M200C3P3▲ | 470        | 200   | 25 x 30       | 2.39   | 2.25   | 1.65   | 1.31   |
| 536083   | LPX471M450H9P3▲ | 480        | 450   | 35 x 50       | 10.39  | 9.88   | 7.24   | 5.74   |
| 536091   | LPX681M200C7P3▲ | 680        | 200   | 25 x 40       | 5.09   | 4.58   | 4.12   | 3.70   |
| 536104   | LPX681M400H9P3▲ | 680        | 400   | 35 x 50       | 11.49  | 10.18  | 9.83   | 9.34   |
| 535996   | LPX152M200H7P3▲ | 1,500      | 200   | 35 x 40       | 12.95  | 11.65  | 10.48  | 9.43   |
| 536008   | LPX152M250H9P3▲ | 1,500      | 250   | 35 x 50       | 9.55   | 8.43   | 8.15   | 7.74   |
| 536024   | LPX222M200H9P3▲ | 2,200      | 200   | 35 x 50       | 11.89  | 10.51  | 10.16  | 9.65   |

# Mica & Suppressor Capacitors



RoHS Compliant Product  
RoHS Also Available

Details on Page 1

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |



## Standard Dipped Mica Capacitors

Type CD10/D10/CD15/CD19/CD30/CD42/CDV19/CDV30

- High temperature up to 150°C
- Dimensions meet EIA RS153B specifications
- 100,000V/μs dV/dt pulse capability minimum
- Dielectric strength: 200% of rated voltage
- Tolerance: ±1/2pF (D); ±pF (C); ±1.2% (E); ±1% (F); ±2% (G); ±5% (J)

Lower\$\$\$



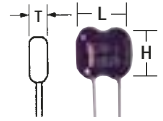
| Part No. | Product No.   | Value (pF) | Volt VDC | Size (mm) LxHxTh. | Spacing (mm) | Pricing |        |       |       |
|----------|---------------|------------|----------|-------------------|--------------|---------|--------|-------|-------|
|          |               |            |          |                   |              | 1       | 10     | 100   | 1000  |
| 530108   | CD10CD050D03  | 5          | 500      | 9.1x8.4x4.8       | 3.6          | \$1.06  | \$1.00 | \$.95 | \$.72 |
| 530141   | CD10CD150J03  | 15         | 500      | 9.1x8.4x4.8       | 3.6          | 1.06    | 1.00   | .95   | .72   |
| 530167   | CD10ED200J03  | 20         | 500      | 9.1x8.4x4.8       | 3.6          | .81     | .77    | .73   | .539  |
| 530191   | CD10ED270J03  | 27         | 500      | 9.4x8.4x4.8       | 3.6          | .81     | .77    | .73   | .539  |
| 530204   | CD10ED300J03  | 30         | 500      | 9.4x8.6x4.8       | 3.6          | .81     | .77    | .73   | .539  |
| 530212   | CD10ED330J03  | 33         | 500      | 9.4x8.6x4.8       | 3.6          | .81     | .77    | .73   | .539  |
| 530221   | CD10ED390J03  | 39         | 500      | 9.4x8.6x4.8       | 3.6          | .91     | .86    | .82   | .62   |
| 530280   | CD10FA331J03  | 330        | 500      | 16.3x12.7x4.8     | 8.7          | 1.55    | 1.42   | 1.35  | 1.01  |
| 530319   | CD10FD101J03  | 100        | 500      | 9.4x8.9x5.1       | 3.6          | .98     | .93    | .88   | .67   |
| 530335   | CD10FD151J03  | 150        | 500      | 9.7x9.1x5.3       | 3.6          | 1.01    | .96    | .91   | .69   |
| 530343   | CD10FD181J03  | 180        | 500      | 9.9x9.4x5.3       | 3.6          | 1.65    | 1.54   | 1.46  | .90   |
| 530360   | CD10FD221J03  | 220        | 500      | 9.9x9.7x5.6       | 3.6          | 1.37    | 1.31   | 1.24  | .93   |
| 530394   | CD15CD030D03  | 3          | 500      | 11.4x9.1x4.3      | 5.9          | .76     | .73    | .69   | .467  |
| 530466   | CD15ED200D03  | 20         | 500      | 11.4x9.1x4.3      | 5.9          | .84     | .79    | .72   | .62   |
| 530482   | CD15ED220D03  | 22         | 500      | 11.4x9.1x4.3      | 5.9          | .89     | .86    | .83   | .66   |
| 530511   | CD15ED270J03  | 27         | 500      | 11.4x9.1x4.3      | 5.9          | .72     | .66    | .59   | .55   |
| 530520   | CD15ED300J03  | 30         | 500      | 11.4x9.1x4.3      | 5.9          | .54     | .51    | .484  | .354  |
| 530538   | CD15ED330G03  | 33         | 500      | 11.4x9.1x4.3      | 5.9          | .99     | .94    | .89   | .60   |
| 530562   | CD15ED390G03  | 39         | 500      | 11.4x9.1x4.3      | 5.9          | .99     | .94    | .89   | .60   |
| 530589   | CD15ED470G03  | 47         | 500      | 11.4x9.1x4.3      | 5.9          | .93     | .88    | .83   | .66   |
| 530600   | CD15ED500J03  | 50         | 500      | 11.4x9.1x4.3      | 5.9          | .53     | .497   | .472  | .348  |
| 530642   | CD15ED680J03  | 68         | 500      | 11.4x9.1x4.6      | 5.9          | .56     | .52    | .494  | .365  |
| 530491   | CD15ED220J03  | 22         | 500      | 11.4x9.1x4.6      | 5.9          | .53     | .50    | .49   | .48   |
| 530669   | CD15ED820J03  | 82         | 500      | 11.4x9.1x4.6      | 5.9          | .55     | .54    | .53   | .52   |
| 530677   | CD15FA102F03  | 1000       | 500      | 11.4x9.1x4.6      | 5.9          | 4.29    | 4.07   | 3.87  | 2.79  |
| 530722   | CD15FC681J03  | 680        | 300      | 11.9x9.9x5.3      | 5.9          | 1.69    | 1.57   | 1.49  | 1.10  |
| 530731   | CD15FC751J03  | 750        | 300      | 11.9x9.9x5.3      | 5.9          | 1.79    | 1.67   | 1.59  | 1.18  |
| 530749   | CD15FC821J03  | 820        | 300      | 11.9x9.9x5.3      | 5.9          | 1.95    | 1.81   | 1.72  | 1.27  |
| 530757   | CD15FD101F03  | 100        | 500      | 11.7x9.4x4.6      | 5.9          | 1.19    | 1.13   | 1.12  | .69   |
| 530781   | CD15FD121J03  | 120        | 500      | 11.7x9.4x4.6      | 5.9          | .61     | .57    | .539  | .395  |
| 530802   | CD15FD151J03  | 150        | 500      | 11.7x9.4x4.8      | 5.9          | .64     | .60    | .57   | .416  |
| 530829   | CD15FD181J03  | 180        | 500      | 11.7x9.4x4.8      | 5.9          | .73     | .70    | .66   | .479  |
| 530853   | CD15FD221J03  | 220        | 500      | 11.7x9.7x5.1      | 5.9          | .76     | .72    | .68   | .497  |
| 530888   | CD15FD271J03  | 270        | 500      | 11.9x9.9x5.3      | 5.9          | .88     | .83    | .79   | .58   |
| 530909   | CD15FD331G03  | 330        | 500      | 11.9x9.9x5.3      | 5.9          | 1.79    | 1.70   | 1.20  | .88   |
| 530941   | CD15FD391J03  | 390        | 500      | 11.9x9.9x5.3      | 5.9          | 1.12    | 1.05   | 1.00  | .74   |
| 530984   | CD15FD471J03  | 470        | 500      | 11.9x10.2x5.6     | 5.9          | 1.30    | 1.22   | 1.16  | .85   |
| 531039   | CD19FD102J03  | 1000       | 500      | 16.5x13.2x5.6     | 8.7          | 1.19    | 1.18   | 1.16  | 1.15  |
| 531055   | CD19FD122J03  | 1200       | 500      | 16.8x13.2x5.6     | 8.7          | 1.59    | 1.49   | 1.13  | .94   |
| 531101   | CD19FD202J03  | 2000       | 500      | 17x13.5x6.1       | 8.7          | 2.35    | 2.20   | 1.66  | 1.37  |
| 531135   | CD19FD271J03  | 270        | 500      | 16.3x12.7x4.8     | 8.7          | 1.06    | .99    | .75   | .62   |
| 531160   | CD19FD331J03  | 330        | 500      | 16.3x12.7x4.8     | 8.7          | 1.10    | 1.02   | .77   | .64   |
| 531194   | CD19FD392J03  | 3900       | 500      | 17.5x14.2x7.9     | 8.7          | 3.59    | 3.51   | 3.47  | 3.43  |
| 531215   | CD19FD472J03  | 4700       | 500      | 17.8x14.7x8.9     | 8.7          | 4.15    | 3.67   | 2.77  | 2.29  |
| 531258   | CD19FD561J03  | 560        | 500      | 16.5x13x5.1       | 8.7          | 1.17    | .95    | .91   | .87   |
| 531266   | CD19FD681J03  | 680        | 500      | 16.5x13x5.3       | 8.7          | 1.33    | 1.26   | .95   | .79   |
| 531303   | CD30FD103J03  | 10,000     | 500      | 20.3x22.6x8.6     | 11.1         | 9.09    | 8.15   | 6.15  | 5.04  |
| 531776   | CDV19FF391J03 | 390        | 1000     | 16.5x13x5.1       | 8.7          | 1.79    | 1.70   | 1.06  | .79   |

## Dipped Silver Mica Capacitors (±5%)

Metallized Polyester Film Capacitors

- Case type: DM15 • Lead Space: 0.23"
- Tolerance: ±5%
- Operating temp. range: -55° to +125°C

Quantity SAVE



| Part No. | Cross Ref. No. | Value  | Volt. (V) | Size (mm) L x T x H | 1      | 10     | 100     | 1000    |
|----------|----------------|--------|-----------|---------------------|--------|--------|---------|---------|
| 15991    | DM100          | 10pF   | 500       | 11 x 4 x 9          | \$ .49 | \$ .44 | \$ .333 | \$ .249 |
| 16037    | DM220          | 22pF   | 500       | 11 x 4 x 9          | .44    | .396   | .317    | .238    |
| 16070    | DM330          | 33pF   | 500       | 11 x 4 x 9          | .49    | .441   | .353    | .29     |
| 16096    | DM470          | 47pF   | 500       | 11 x 4 x 9          | .49    | .39    | .29     | .218    |
| 16002    | DM101          | 100pF  | 500       | 11 x 4 x 9          | .49    | .44    | .39     | .29     |
| 16088    | DM331          | 330pF  | 500       | 11 x 4 x 9          | .89    | .73    | .55     | .413    |
| 16109    | DM471          | 470pF  | 500       | 11 x 4 x 9          | 1.05   | .95    | .76     | .57     |
| 16011    | DM102          | 1000pF | 100       | 11 x 4 x 9          | 1.19   | 1.07   | .86     | .64     |

\* Capacitor dimensions and styles may vary



## Suppressor Capacitors

158 Series Type X2 ±20%

- UL1414 and CSA approved
- Flame retardant case meets UL94V-0
- Polyurethane end file meets UL94V-0
- Used in applications where damage to the capacitor will not lead to the danger of electrical shock
- Operating temperature range: -40°C to 100°C
- Lead material: tinned copper clad steel • Voltage range: 275/250 VAC, 60Hz
- Insulation resistance @ 500VDC: ≤0.33μF = 15k MΩ, ≥0.47μF = 5k MΩ x μF

Lower\$\$\$



| Part No. | Product No. | Value (μF) | L x Th. x H (mm) | Spacing (mm) | 1     | 10    | 100   | 500   |
|----------|-------------|------------|------------------|--------------|-------|-------|-------|-------|
| 528008   | 158X103     | 0.010      | 17 x 5 x 12      | 15           | \$.96 | \$.91 | \$.83 | \$.76 |
| 528059   | 158X333     | 0.033      | 17 x 5 x 12      | 15           | .73   | .69   | .62   | .434  |
| 528067   | 158X473     | 0.047      | 17 x 5.5 x 12.5  | 15           | \$.98 | .93   | .85   | .77   |
| 528016   | 158X104     | 0.10       | 17 x 8 x 15      | 15           | .99   | .89   | .80   | .72   |
| 528032   | 158X244     | 0.22       | 25 x 8 x 17.5    | 22.5         | 1.65  | 1.48  | 1.33  | 1.19  |
| 528075   | 158X474     | 0.47       | 30 x 11 x 22     | 27.5         | 1.65  | 1.55  | 1.10  | .85   |
| 528083   | 158X684     | 0.68       | 30 x 13.5 x 24.5 | 27.5         | 2.75  | 2.47  | 2.20  | 1.76  |
| 528024   | 158X105     | 1.0        | 30.5 x 15 x 24.5 | 27.5         | 2.99  | 2.82  | 2.00  | 1.59  |
| 528041   | 158X225     | 2.2        | 41 x 17.5 x 32.5 | 37.5         | 5.95  | 5.65  | 4.00  | 3.18  |



## Aluminum Electrolytic Capacitors

Type CGH High Voltage Screw Terminal Computer Grade

- Voltage range: 250-500VDC • Temp. range: -40° to 85°C

Type CGO Computer Grade

- Voltage range: 5-55VDC • Temp. range: -40° to 85°C

Type CGR High Temperature Screw

Terminal Computer Grade

- Voltage range: 7.5-200VDC • Temp. range: -40° to 105°C

Type CGS Screw Terminal Computer Grade

- Voltage range: 6.3-500VDC • Temp. range: -40° to 85°C

Type SEK/SK Radial Lead

- Voltage range: 6.3-450VDC • Tolerance: ±20%

Type SKA Axial Lead

- Tolerance: ±20% • High CV • Voltage range: 6.3-450VDC

Type TC Axial Lead

- Voltage range: 16-450VDC • Operating temp.: -40°C to 85°C

Type TCG Axial Lead Computer Grade

- Voltage range: 6-450VDC • Operating temp.: -40°C to 85°C

Type TKA Axial Lead

- Voltage range: 6.3-450VDC • Operating temp.: -40°C to 105°C

Type SN 85°C Non-Polar

- Voltage range: 6.3-85VNP • Operating temp.: -40°C to 105°C

These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.



## Miscellaneous Capacitors

Type PSU AC Motor Start

- Dual quick connect terminals • Voltage range: 110-330VAC
- Operating temp: -40°C to 65°C

Type SCRNM Film-Paper/Extended Foil Commutating Capacitor

- Voltage range: 200-2000 Vpk • Tolerance: ±10%

These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.



See Our Complete CDE Offering at  
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See Our Complete CDE Electrolytic Offering at  
[www.Jameco.com/Prod/CDEElectrolytic](http://www.Jameco.com/Prod/CDEElectrolytic)

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product ♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

CDE

## Ceramic Capacitors

### P10 - P40 Series Multi-Layer

- Axial leaded conformally coated
- Applications: filtering, bypass, coupling
- Encapsulation consists of a moisture and shock resistant coating that meets UL04V-0

50VDC, X7R, ±10%

Prepackaged: please order in increments of 10

| Part No. | Product No. | Capacitance | Dimensions          | 10     | 100    | 500    | 1000   |
|----------|-------------|-------------|---------------------|--------|--------|--------|--------|
| 536526   | P10R103K5   | .01µF       | 0.10" Dia. x 0.17"L | \$.127 | \$.123 | \$.119 | \$.113 |
| 536542   | P20R104K5   | 0.1µF       | 0.12" Dia. x 0.17"L | .157   | .153   | .151   | .149   |

50VDC, Z5U, ±20%

| Part No. | Product No. | Capacitance | Dimensions          | 10    | 100    | 500    | 1000   |
|----------|-------------|-------------|---------------------|-------|--------|--------|--------|
| 536534   | P10U104M5   | 0.1µF       | 0.10" Dia. x 0.17"L | \$.10 | \$.096 | \$.091 | \$.086 |
| 536551   | P40U105M5   | 1µF         | 0.15" Dia. x 0.40"L | 1.07  | .96    | .86    | .77    |

### EIA Class 2 Temperature/Frequency Stable Disc

- Highly efficient for bypass & coupling applications
- Temperature range: -30°C to +85°C
- Insulation resistance: 10,000MΩ min.
- Power factor @ 1000Hz: 2.5% max.
- Breakdown voltage: 2.5 x rated (5 seconds max.)

Y5U, 20%

Prepackaged: please order in increments of 10

| Part No. | Product No. | Value (pF) | Voltage | Dia. x Thick  | Spacing | 10    | 100   | 1000  | 5000  |
|----------|-------------|------------|---------|---------------|---------|-------|-------|-------|-------|
| 535718   | HT102M      | 1000       | 3000    | 0.39" x 0.24" | 0.374"  | \$.59 | \$.53 | \$.47 | \$.42 |
| 535726   | HT222M      | 2200       | 3000    | 0.59" x 0.24" | 0.374"  | 1.06  | .95   | .85   | .76   |
| 535742   | HT472M      | 4700       | 3000    | 0.79" x 0.24" | 0.374"  | 1.03  | .98   | .64   | .61   |

Y5P, 10%

| Part No. | Product No. | Value (pF) | Voltage | Dia. x Thick  | Spacing | 10     | 100    | 1000   | 5000  |
|----------|-------------|------------|---------|---------------|---------|--------|--------|--------|-------|
| 535734   | HT471K      | 470        | 3000    | 0.39" x 0.24" | 0.374"  | \$.344 | \$.327 | \$.203 | \$.17 |

### General Purpose Disc

- Ideal for use in non-critical coupling, bypass and filter applications
- Conformally coated
- Temperature range: -30°C to +85°C
- Lead length: 1" minimum
- Lead dia.: 0.025" (except P/N 535638: 0.016")
- Insulation resistance: 10,000MΩ min.
- Breakdown voltage: 2.5 x rated (5 seconds max.)

Y5U, 20%

Prepackaged: please order in increments of 10

| Part No. | Product No. | Value (pF) | Voltage | Dia. x Thick  | Spacing | 10     | 100   | 1000   | 5000  |
|----------|-------------|------------|---------|---------------|---------|--------|-------|--------|-------|
| 535689   | GP247       | 4700       | 1000    | 0.43" x 0.18" | 0.252"  | \$.337 | \$.32 | \$.181 | \$.11 |
| 535646   | GM103M      | 10,000     | 500     | 0.49" x 0.16" | 0.252"  | .172   | .163  | .154   | .193  |
| 535654   | GP110       | 10,000     | 1000    | 0.59" x 0.18" | 0.374"  | .35    | .335  | .203   | .193  |

Y5P, 10%

| Part No. | Product No. | Value (pF) | Voltage | Dia. x Thick  | Spacing | 10     | 100    | 1000   | 5000   |
|----------|-------------|------------|---------|---------------|---------|--------|--------|--------|--------|
| 535638   | GE101K      | 100        | 50      | 0.16" x 0.12" | 0.098"  | \$.142 | \$.135 | \$.097 | \$.048 |
| 535697   | GP310       | 100        | 1000    | 0.24" x 0.18" | 0.252"  | .172   | .163   | .154   | .057   |
| 535700   | GP347       | 470        | 1000    | 0.24" x 0.18" | 0.252"  | .29    | .26    | .23    | .20    |
| 535662   | GP210       | 1000       | 1000    | 0.29" x 0.18" | 0.252"  | .285   | .259   | .235   | .215   |
| 535671   | GP222       | 2200       | 1000    | 0.37" x 0.18" | 0.252"  | .45    | .41    | .37    | .336   |

## Jameco's Got The Docs

We offer free technical documents for most of the products we carry.  
Find them easily on the product specification pages at [www.Jameco.com](http://www.Jameco.com).

## Ceramic Disc Capacitors (±20%)

25, 50 and 1000 Volt, Z5U Temperature Coefficient

|                                 |  |
|---------------------------------|--|
| Operating temperature range     | +10°C to +85°C                         |
| Cap. change over temp. range    | +22% to -56%                           |
| Dielectric withstanding voltage | 2.5 times rated volt. for not < 1 sec. |



Quantity SAVE

\* Prepackaged: please order in increments of 10

|          | Cross        |       | Voltage | Size (mm)   | Pricing |        |        |        |        |
|----------|--------------|-------|---------|-------------|---------|--------|--------|--------|--------|
| Part No. | Ref. No.     | Value | (V)     | Dia. x L.S. | 1       | 10     | 100    | 1000   | 5000   |
| 332179   | CD1/50 ☺     | 1pF   | 50      | 5 x 2.5     | *       | \$.014 | \$.009 | \$.008 | \$.007 |
| 332291   | CD3.3/1000 ☺ | 3.3pF | 1000    | 5 x 2.5     | .20     | .176   | .103   | .098   | .074   |
| 332187   | CD5/50 ☺☼    | 5pF   | 50      | 5 x 2.5     | *       | .056   | .028   | .027   | .026   |
| 332304   | CD5/1000 ☺   | 5pF   | 1000    | 5 x 2.5     | *       | .143   | .108   | .097   | .073   |
| 15334    | DC10 ☺       | 10pF  | 50      | 5 x 2.5     | *       | .07    | .05    | .02    | .015   |
| 332196   | CD12/50 ☼    | 12pF  | 50      | 5 x 2.5     | *       | .015   | .01    | .009   | .008   |
| 332208   | CD15/50 ☺☼   | 15pF  | 50      | 5 x 2.5     | *       | .03    | .018   | .016   | .015   |
| 332321   | CD20/1000 ☺  | 20pF  | 1000    | 5 x 2.5     | .44     | .35    | .20    | .18    | .135   |
| 15407    | DC22 ☼       | 22pF  | 50      | 6 x 2.5     | *       | .078   | .055   | .028   | .022   |
| 332339   | CD22/1000 ☺  | 22pF  | 1000    | 5 x 2.5     | *       | .093   | .052   | .048   | .044   |
| 332217   | CD33/50 ☼    | 33pF  | 50      | 5 x 2.5     | *       | .056   | .027   | .025   | .02    |
| 15511    | DC47 ☺☼      | 47pF  | 50      | 5 x 2.5     | .61     | .55    | .495   | .396   | .297   |
| 332225   | CD68/50 ☼    | 68pF  | 50      | 5 x 2.5     | *       | .065   | .033   | .029   | .025   |
| 332355   | CD68/1000 ☺  | 68pF  | 1000    | 5 x 2.5     | *       | .141   | .095   | .086   | .065   |
| 15342    | DC100 ☺☼     | 100pF | 50      | 5 x 2.5     | *       | .056   | .039   | .028   | .022   |
| 332232   | CD120/50 ☺   | 120pF | 50      | 5 x 2.5     | *       | .056   | .029   | .027   | .02    |
| 332363   | CD120/1000 ☺ | 120pF | 1000    | 5 x 2.5     | .23     | .206   | .147   | .081   | .06    |
| 332371   | CD150/1000 ☺ | 150pF | 1000    | 5 x 2.5     | .23     | .201   | .143   | .079   | .059   |
| 15414    | DC220 ☺☼     | 220pF | 50      | 5 x 2.5     | *       | .05    | .035   | .025   | .015   |
| 332398   | CD330/1000 ☺ | 330pF | 1000    | 5 x 2.5     | .42     | .235   | .17    | .096   | .068   |
| 15530    | DC470 ☼      | 470pF | 50      | 5 x 2.5     | *       | .09    | .072   | .028   | .021   |
| 332401   | CD470/1000 ☺ | 470pF | 1000    | 5 x 2.5     | .42     | .235   | .17    | .096   | .072   |

\* Prepackaged: please order in increments of 10

|          | Cross         |         | Voltage | Size (mm)   | Pricing |        |        |        |        |
|----------|---------------|---------|---------|-------------|---------|--------|--------|--------|--------|
| Part No. | Ref. No.      | Value   | (V)     | Dia. x L.S. | 1       | 10     | 100    | 1000   | 5000   |
| 332419   | CD560/1000    | 560pF   | 1000    | 6 x 2.5     | *       | \$.043 | \$.039 | \$.031 | \$.023 |
| 332241   | CD680/50      | 680pF   | 50      | 5 x 2.5     | *       | .048   | .026   | .023   | .018   |
| 332427   | CD680/1000    | 680pF   | 1000    | 6 x 2.5     | *       | .149   | .084   | .071   | .053   |
| 332436   | CD1000/1000   | 1000pF  | 1000    | 5 x 2.5     | .38     | .235   | .17    | .096   | .09    |
| 332259   | CD1200/50     | 1200pF  | 50      | 5 x 2.5     | *       | .056   | .03    | .027   | .02    |
| 332267   | CD1500/50     | 1500pF  | 50      | 5 x 2.5     | *       | .056   | .03    | .027   | .02    |
| 332275   | CD2200/50     | 2200pF  | 50      | 5 x 2.5     | *       | .074   | .037   | .033   | .027   |
| 332451   | CD4700/1000   | 4700pF  | 1000    | 7 x 2.5     | .35     | .315   | .268   | .214   | .161   |
| 332460   | CD5000/1000   | 5000pF  | 1000    | 7 x 2.5     | .31     | .30    | .186   | .177   | .132   |
| 332478   | CD7500/1000   | 7500pF  | 1000    | 8 x 2.5     | .48     | .456   | .323   | .307   | .23    |
| 15192    | DC.001        | .001µF  | 50      | 6 x 2.5     | *       | .067   | .056   | .028   | .024   |
| 97342    | DC.0022/1K20  | .0022µF | 1000    | 11 x 2.5    | .49     | .44    | .33    | .144   | .108   |
| 15231    | DC.01         | .01µF   | 50      | 6 x 2.5     | *       | .067   | .045   | .033   | .023   |
| 97377    | DC.01/1K20    | .01µF   | 1000    | 12 x 2.5    | *       | .20    | .133   | .093   | .073   |
| 332486   | CD20000/1000  | .02µF   | 1000    | 16 x 2.5    | .60     | .57    | .33    | .26    | .185   |
| 15246    | DC.022        | .022µF  | 50      | 8 x 2.5     | *       | .07    | .063   | .05    | .037   |
| 15254    | DC.047        | .047µF  | 50      | 8 x 2.5     | .20     | .093   | .083   | .066   | .049   |
| 332494   | CD47000/1000  | .047µF  | 1000    | 16 x 2.5    | 1.59    | 1.22   | .71    | .68    | .51    |
| 332507   | CD50000/1000  | .05µF   | 1000    | 16 x 2.5    | 1.35    | 1.28   | .81    | .65    | .488   |
| 151117   | DC.1/25       | .1µF    | 25      | 6 x 2.5     | *       | .155   | .145   | .089   | .078   |
| 15272    | DC.1          | .1µF    | 50      | 8 x 2.5     | *       | .167   | .145   | .128   | .105   |
| 332516   | CD100000/1000 | .1µF    | 1000    | 21 x 2.5    | 1.95    | 1.79   | 1.05   | .83    | .79    |

### Other Manufacturers — Great Deals\*

|       |        |        |    |   |        |        |        |        |  |        |              |         |      |    |        |        |        |        |        |
|-------|--------|--------|----|---|--------|--------|--------|--------|--|--------|--------------|---------|------|----|--------|--------|--------|--------|--------|
| 15333 | DC10   | 10pF   | 50 | 5 | * .063 | \$.056 | \$.048 | \$.036 |  | 97341  | DC.0022/1K20 | .0022µF | 1000 | 11 | \$.27  | \$.242 | \$.166 | \$.097 | \$.072 |
| 15405 | DC22   | 22pF   | 50 | 6 | * .07  | .05    | .025   | .02    |  | 15211  | DC.0047      | .0047µF | 50   | 6  | * .045 | .032   | .027   | .02    |        |
| 15510 | DC47   | 47pF   | 50 | 5 | * .05  | .045   | .035   | .027   |  | 15229  | DC.01        | .01µF   | 50   | 6  | * .06  | .04    | .03    | .02    |        |
| 15341 | DC100  | 100pF  | 50 | 5 | * .05  | .035   | .025   | .02    |  | 97375  | DC.01/1K20   | .01µF   | 1000 | 12 | .20    | .18    | .12    | .084   | .066   |
| 15413 | DC220  | 220pF  | 50 | 5 | * .045 | .032   | .023   | .017   |  | 15245  | DC.022       | .022µF  | 50   | 8  | * .063 | .045   | .036   | .027   |        |
| 15528 | DC470  | 470pF  | 50 | 5 | * .08  | .065   | .025   | .022   |  | 15253  | DC.047       | .047µF  | 50   | 8  | * .084 | .076   | .06    | .045   |        |
| 15190 | DC.001 | .001µF | 50 | 6 | * .06  | .054   | .043   | .032   |  | 151116 | DC.1/25      | .1µF    | 25   | 6  | * .14  | .13    | .08    | .07    |        |
|       |        |        |    |   |        |        |        |        |  | 15270  | DC.1         | .1µF    | 50   | 8  | * .15  | .13    | .115   | .095   |        |

\* Capacitor dimensions and styles may vary

Blue Part No. = Limited Quantity Available

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product

⊕ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

Color Code Legend

New Sale Lower\$ QtySave

Order 24/7 Toll Free 1-800-831-4242



# Ceramic Capacitors & Transient/Surge Absorbers

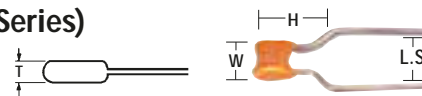
| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |

JAMECO ValuePro

## Monolithic Ceramic Capacitors (±10%) (XR7 Series)

Applications: • Data processing  
Operating temp. range: -10°C to +85°C

• Communications engineering



\* Prepackaged: please order in increments of 10

\* Prepackaged: please order in increments of 10

| Part No. | Cross Ref. No. | Value  | Volt. (V) | Size (mm) WxTxHxL.S. | Pricing |      |      |      |      |
|----------|----------------|--------|-----------|----------------------|---------|------|------|------|------|
|          |                |        |           |                      | 1       | 10   | 100  | 1000 | 5000 |
| 332583   | MOC100/100     | 100pF  | 100       | 5.0x5.0x3.0x2.5      | * .14   | .12  | .081 | .061 |      |
| 332591   | MOC220/100     | 220pF  | 100       | 5.0x5.0x3.0x2.5      | .27     | .188 | .134 | .074 | .07  |
| 332603   | MOC330/100     | 330pF  | 100       | 5.0x5.0x3.0x2.5      | .27     | .188 | .134 | .094 | .071 |
| 332611   | MOC470/100     | 470pF  | 100       | 5.0x5.0x3.0x2.5      | * .121  | .088 | .08  | .076 |      |
| 544825   | SR151C102KAA   | 1000pF | 100       | 3.8x2.5x3.8x5.1      | * .087  | .069 | .043 | .041 |      |
| 332620   | MOC1000/100    | 1000pF | 100       | 5.0x5.0x3.0x2.5      | * .107  | .078 | .055 | .041 |      |
| 544841   | SR151C222KAA   | 2200pF | 100       | 3.8x2.5x3.8x5.1      | * .104  | .094 | .074 | .071 |      |
| 544850   | SR151C472KAA   | 4700pF | 100       | 3.8x2.5x3.8x5.1      | * .114  | .102 | .081 | .078 |      |
| 332638   | MOC4700/100    | 4700pF | 100       | 5.0x5.0x3.0x2.5      | * .107  | .078 | .055 | .052 |      |
| 597281   | SR211C103KAA   | .01µF  | 100       | 3.8x2.5x3.8x5.1      | * .118  | .098 | .046 | .044 |      |
| 544833   | SR151C103KAA   | .01µF  | 100       | 3.8x2.5x3.8x5.1      | * .103  | .088 | .054 | .053 |      |

| Part No. | Cross Ref. No. | Value  | Volt. (V) | Size (mm) WxTxHxL.S. | Pricing |      |      |      |      |
|----------|----------------|--------|-----------|----------------------|---------|------|------|------|------|
|          |                |        |           |                      | 1       | 10   | 100  | 1000 | 5000 |
| 332647   | MOC10000/100   | .01µF  | 100       | 5.0x5.0x3.0x2.5      | * .125  | .09  | .063 | .06  |      |
| 544892   | SR211C223KAA   | .022µF | 100       | 3.8x2.5x3.8x5.1      | * .137  | .13  | .104 | .10  |      |
| 332654   | MOC22000/100   | .022µF | 100       | 5.0x5.0x3.0x2.5      | * .111  | .08  | .056 | .053 |      |
| 544905   | SR211C333KAA   | .033µF | 100       | 3.8x2.5x3.8x5.1      | * .142  | .13  | .105 | .097 |      |
| 544913   | SR211C473KAA   | .047µF | 100       | 3.8x2.5x3.8x5.1      | * .142  | .139 | .11  | .107 |      |
| 332662   | MOC47000/100   | .047µF | 100       | 5.0x5.0x3.0x2.5      | * .142  | .139 | .073 | .069 |      |
| 544921   | SR215C104KAA   | .1µF   | 50        | 3.8x2.5x3.8x5.1      | * .111  | .088 | .057 | .054 |      |
| 544884   | SR211C104KAA   | .1µF   | 100       | 3.8x2.5x3.8x5.1      | * .127  | .09  | .068 | .061 |      |
| 332672   | MOC100000/100  | .1µF   | 100       | 5.0x5.0x3.0x2.5      | * .132  | .096 | .067 | .064 |      |
| 332689   | MOC150000/100  | .15µF  | 50        | 5.0x5.0x3.0x2.5      | .45     | .405 | .344 | .275 | .206 |
| 544948   | SR305C474KAA   | .47µF  | 50        | 3.8x2.5x3.8x5.1      | .46     | .396 | .24  | .232 | .224 |

JAMECO ValuePro



## Monolithic Ceramic Capacitors (±20%) (Z5U Series)

Quantity SAVE

\* Prepackaged: please order in increments of 10

\* Prepackaged: please order in increments of 10

| Part No. | Cross Ref. No. | Value  | Volt. (V) | Size (mm) W x T x H x L.S. | Pricing |      |      |      |      |
|----------|----------------|--------|-----------|----------------------------|---------|------|------|------|------|
|          |                |        |           |                            | 1       | 10   | 100  | 1000 | 5000 |
| 81543    | MD10           | 10pF   | 50        | 3.5x2.0x3.0x2.5            | * .10   | .065 | .045 | .035 |      |
| 332523   | MOC10/100      | 10pF   | 100       | 4.2x3.0x4.2x2.5            | * .089  | .065 | .046 | .035 |      |
| 332531   | MOC15/100      | 15pF   | 100       | 4.2x3.0x4.2x2.5            | .30     | .202 | .144 | .101 | .076 |
| 81535    | MD22           | 22pF   | 50        | 4.0x2.0x4.0x2.5            | * .105  | .081 | .05  | .045 |      |
| 332541   | MOC22/100      | 22pF   | 100       | 4.2x3.0x4.2x2.5            | * .10   | .073 | .051 | .048 |      |
| 332558   | MOC33/100      | 33pF   | 100       | 4.2x3.0x4.2x2.5            | * .167  | .122 | .08  | .076 |      |
| 332567   | MOC47/100      | 47pF   | 100       | 4.2x3.0x4.2x2.5            | .20     | .118 | .086 | .06  | .057 |
| 332574   | MOC68/100      | 68pF   | 100       | 4.2x3.0x4.2x2.5            | .30     | .202 | .144 | .101 | .076 |
| 81526    | MD100          | 100pF  | 50        | 3.5x2.0x3.0x2.5            | * .058  | .042 | .036 | .035 |      |
| 81519    | MD.001         | .001µF | 50        | 4.5x2.0x3.0x2.5            | .20     | .10  | .078 | .075 | .068 |

| Part No. | Cross Ref. No. | Value  | Volt. (V) | Size (mm) W x T x H x L.S. | Pricing |      |      |      |      |
|----------|----------------|--------|-----------|----------------------------|---------|------|------|------|------|
|          |                |        |           |                            | 1       | 10   | 100  | 1000 | 5000 |
| 25509    | MD.01          | .01µF  | 50        | 3.5x2.0x3.0x2.5            | * .09   | .06  | .045 | .041 |      |
| 57623    | MD.047         | .047µF | 50        | 2.5x2.5x3.0x2.5            | * .08   | .07  | .05  | .039 |      |
| 544868   | SR151C472KAA   | .1µF   | 50        | 3.8x2.5x4.0x2.5            | * .094  | .06  | .034 | .032 |      |
| 25525    | MD.1           | .1µF   | 50        | 3.4x2.2x3.6x2.5            | * .078  | .067 | .044 | .039 |      |
| 25541    | MD.22          | .22µF  | 50        | 6.0x2.0x4.5x2.5            | .21     | .189 | .133 | .089 | .066 |
| 544930   | SR215E334MAA   | .33µF  | 50        | 3.8x2.5x3.8x5.1            | .20     | .174 | .111 | .087 | .081 |
| 138238   | MD.33          | .33µF  | 50        | 6.0x2.0x8.0x2.5            | .20     | .178 | .155 | .122 | .078 |
| 25560    | MD.47          | .47µF  | 50        | 4.5x2.5x4.5x2.5            | .43     | .39  | .28  | .21  | .145 |
| 544956   | SR305E105MAA   | .1µF   | 50        | 3.8x2.5x3.8x5.1            | .20     | .19  | .149 | .141 | .131 |
| 81510    | MD1            | .1µF   | 50        | 6.0x3.0x7.0x2.5            | .53     | .48  | .355 | .255 | .233 |

### Other Manufacturers — Great Deals\*

|        |         |         |    |             |        |      |      |      |     |
|--------|---------|---------|----|-------------|--------|------|------|------|-----|
| 81533  | MD22    | 22pF    | 50 | 4.0x2.0x4.0 | * .095 | .073 | .045 | .04  |     |
| 81517  | MD.001  | .001µF  | 50 | 4.5x2.0x3.0 | * .06  | .053 | .026 | .021 |     |
| 138181 | MD.0022 | .0022µF | 50 | 4.0x2.0x5.5 | .20    | .07  | .06  | .05  | .04 |
| 25507  | MD.01   | .01µF   | 50 | 3.5x2.0x3.0 | * .10  | .067 | .05  | .045 |     |
| 57621  | MD.047  | .047µF  | 50 | 2.5x2.5x3.0 | * .072 | .063 | .045 | .034 |     |

|        |       |       |    |             |       |      |      |      |     |
|--------|-------|-------|----|-------------|-------|------|------|------|-----|
| 25523  | MD.1  | .1µF  | 50 | 6.0x2.0x4.0 | * .07 | .06  | .04  | .035 |     |
| 25540  | MD.22 | .22µF | 50 | 6.0x2.0x4.5 | * .17 | .12  | .08  | .06  |     |
| 138237 | MD.33 | .33µF | 50 | 6.0x2.0x8.0 | * .16 | .141 | .113 | .084 |     |
| 25558  | MD.47 | .47µF | 50 | 4.5x2.5x4.5 | .27   | .25  | .19  | .13  | .12 |
| 81509  | MD1   | .1µF  | 50 | 6.0x3.0x7.0 | .48   | .43  | .32  | .23  | .21 |

\* Capacitor dimensions and style may vary

\* Blue Part No. = Limited Quantity Available

For more AVX Ceramic Capacitors visit [www.Jameco.com](http://www.Jameco.com)

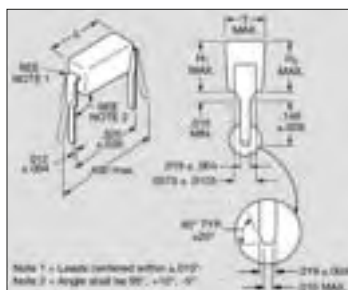


NEW

## Molded DIP Lead Ceramic Capacitors

- DIP package
- Tolerances: 10%, 20%
- Operating temperature: X7R: -55°C; Z5U: -10°C to 85°C

|             |                 |
|-------------|-----------------|
| Length (L)  | 6.60mm (0.260") |
| Height (H1) | 3.43mm (0.135") |
| Height (H2) | 4.19mm (0.165") |
| Thickness   | 2.54mm (0.098") |



\* Prepackaged: please order in increments of 5

| Part No. | Product No.  | Temp. Coeff. | Value  | Volt. | Tolerance | 1     | 5   | 50  |
|----------|--------------|--------------|--------|-------|-----------|-------|-----|-----|
| 767236   | MD015C102KAB | X7R          | 1000pF | 50    | 10%       | * .44 | .43 |     |
| 767244   | MD015C102MAB | X7R          | 1000pF | 50    | 20%       | * .38 | .37 |     |
| 767210   | MD011C102MAB | X7R          | 1000pF | 100   | 20%       | * .38 | .37 |     |
| 848953   | MD015C103KAB | X7R          | .01µF  | 50    | 10%       | * .44 | .43 |     |
| 767228   | MD011C103KAB | X7R          | .01µF  | 100   | 10%       | * .44 | .43 |     |
| 848870   | MD015C104KAB | X7R          | .1µF   | 50    | 10%       | .51   | .47 | .43 |
| 848909   | MD015C104MAB | X7R          | .1µF   | 50    | 20%       | * .38 | .37 |     |
| 767252   | MD015E103MAB | Z5U          | .01µF  | 50    | 20%       | * .23 | .21 |     |
| 848933   | MD015E104MAB | Z5U          | .1µF   | 50    | 20%       | * .26 | .25 |     |
| 767261   | MD025E474MAB | Z5U          | .47µF  | 50    | 20%       | .75   | .72 | .70 |



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65,000 New Products

42 New Major Brands at [www.Jameco.com](http://www.Jameco.com)

\* This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

**JAMECO ValuePro**

**Quantity SAVE**

## Motor Capacitors

**A Jameco EXCLUSIVE**



- Operating temp.: -25°C to +85°C
- Insulation resistance: >300MΩ
- Metal or plastic shell and double welding sheet metal
- Quick connect

### Motor Running Capacitors

| Part No. | Cross Ref. No. | Value | Volt. (V) | Dimensions D x H (mm) | Pricing |        |        |        |
|----------|----------------|-------|-----------|-----------------------|---------|--------|--------|--------|
|          |                |       |           |                       | 1       | 10     | 100    | 500    |
| 332806   | MRC370V4       | 4µF   | 370       | 34 x 50               | \$5.05  | \$4.80 | \$4.33 | \$3.25 |
| 332814   | MRC370V5       | 5µF   | 370       | 34 x 50               | 3.85    | 3.47   | 2.78   | 2.09   |
| 332822   | MRC370V7R5     | 7.5µF | 370       | 36 x 80               | 5.89    | 3.96   | 3.38   | 2.54   |
| 332831   | MRC370V10      | 10µF  | 370       | 42 x 80               | 4.85    | 4.06   | 3.46   | 2.60   |
| 332865   | MRC440V10      | 10µF  | 440       | 40 x 70               | 6.49    | 5.47   | 4.72   | 3.54   |
| 332849   | MRC370V15      | 15µF  | 370       | 40 x 70               | 6.05    | 5.07   | 4.38   | 3.29   |
| 332873   | MRC440V20      | 20µF  | 440       | 40 x 70               | 9.99    | 8.51   | 7.27   | 5.45   |
| 332857   | MRC370V25      | 25µF  | 370       | 40 x 70               | 8.05    | 6.76   | 5.83   | 4.37   |

### Motor Starting Capacitors

| Part No. | Cross Ref. No. | Value | Volt. (V) | Dimensions D x H (mm) | Pricing |        |        |        |
|----------|----------------|-------|-----------|-----------------------|---------|--------|--------|--------|
|          |                |       |           |                       | 1       | 10     | 100    | 500    |
| 332697   | MSC125V21      | 21µF  | 125       | 37 x 70               | \$2.29  | \$2.06 | \$1.64 | \$1.49 |
| 332769   | MSC250V21      | 21µF  | 250       | 37 x 70               | 2.95    | 2.80   | 2.66   | 2.00   |
| 332777   | MSC250V30      | 30µF  | 250       | 37 x 70               | 3.09    | 2.94   | 2.90   | 2.18   |
| 332785   | MSC250V53      | 53µF  | 250       | 46 x 86               | 3.85    | 3.25   | 3.02   | 2.67   |
| 332700   | MSC125V124     | 124µF | 125       | 37 x 70               | 2.35    | 2.11   | 1.69   | 1.66   |
| 332718   | MSC125V161     | 161µF | 125       | 37 x 70               | 2.55    | 2.37   | 2.06   | 1.78   |
| 332726   | MSC125V189     | 189µF | 125       | 37 x 70               | 2.69    | 2.50   | 2.17   | 2.07   |
| 332734   | MSC125V216     | 216µF | 125       | 37 x 86               | 3.25    | 2.93   | 2.64   | 2.38   |
| 332742   | MSC125V270     | 270µF | 125       | 37 x 86               | 3.59    | 3.41   | 3.24   | 2.67   |
| 332751   | MSC125V590     | 590µF | 125       | 46 x 111              | 6.15    | 5.84   | 5.55   | 4.73   |

Passives

**Panasonic**

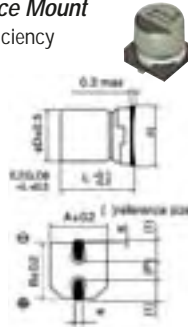
## Surface Mount Aluminum Electrolytic Capacitors

For more Panasonic Capacitors visit [www.jameco.com](http://www.jameco.com)

### VS Series Aluminum Electrolytic Capacitors, Surface Mount

- Life time: 2,000 hours @ 85°C
- High CV volumetric efficiency
- Capacitance tolerance: ±20%
- General purpose
- Operating temperature range: -40°C to 85°C

| Size Code | Dimensions (mm) |        |       |     |           |             |
|-----------|-----------------|--------|-------|-----|-----------|-------------|
|           | Diameter        | Height | Width | I   | Pad Width | Pad Spacing |
| A         | 3               | 5.4    | 3.3   | 1.5 | 0.55      | 0.6         |
| B         | 4               | 5.4    | 4.3   | 1.8 | 0.65      | 1           |
| C         | 5               | 5.4    | 5.3   | 2.2 | 0.65      | 1.5         |
| D         | 6.3             | 5.4    | 6.6   | 2.6 | 0.65      | 1.8         |
| D2        | 6.3             | 5.7    | 6.6   | 2.6 | 0.65      | 1.8         |
| D8        | 6.3             | 7.7    | 6.6   | 2.6 | 0.65      | 1.8         |
| E         | 8               | 6.2    | 8.3   | 3.4 | 0.65      | 2.2         |
| F         | 8               | 10.2   | 8.3   | 3.4 | 0.9       | 3.1         |
| G         | 10              | 10.2   | 10.3  | 3.5 | 0.9       | 4.6         |



\* Prepackaged: please order in increments of 5

| Part No. | Product No.   | Size Code | Voltage (V) | Capacitance Value | Pricing |         |         |
|----------|---------------|-----------|-------------|-------------------|---------|---------|---------|
|          |               |           |             |                   | 1       | 5       | 50      |
| 857451   | ECE-V1HA10SR  | B         | 50          | 1µF               | *       | \$ .159 | \$ .147 |
| 857602   | ECE-V1HS01SR  | A         | 50          | 1µF               | *       | .178    | .164    |
| 857821   | ECE-V1VA47SR  | B         | 35          | 4.7µF             | *       | .191    | .176    |
| 919148   | ECE-V1CA100SR | B         | 16          | 10µF              | *       | .235    | .217    |
| 919261   | ECE-V1CS100SR | A         | 16          | 10µF              | *       | .178    | .164    |
| 857338   | ECE-V1EA100SR | C         | 25          | 10µF              | *       | .254    | .235    |
| 857696   | ECE-V1VA100SR | C         | 35          | 10µF              | *       | .223    | .205    |
| 919332   | ECE-V1HA100SP | D         | 50          | 10µF              | *       | .27     | .249    |
| 857856   | ECE-V2AA100P  | F         | 100         | 10µF              | .55     | .452    | .417    |
| 857186   | ECE-V1CA220SR | C         | 16          | 22µF              | *       | .223    | .205    |
| 857207   | ECE-V1CA220WR | B         | 16          | 22µF              | *       | .213    | .196    |
| 857792   | ECE-V1VA220SP | D         | 35          | 22µF              | *       | .254    | .235    |
| 857485   | ECE-V1HA220UP | D2        | 50          | 22µF              | *       | .318    | .294    |
| 857151   | ECE-V1AA330WR | B         | 10          | 33µF              | *       | .165    | .152    |
| 857362   | ECE-V1EA330SP | D         | 25          | 33µF              | *       | .254    | .235    |
| 857549   | ECE-V1HA330UP | E         | 50          | 33µF              | *       | .318    | .294    |
| 857881   | ECE-V2AA330P  | G         | 100         | 33µF              | .69     | .57     | .519    |
| 919236   | ECE-V1CA470SP | D         | 16          | 47µF              | *       | .254    | .235    |
| 857231   | ECE-V1CA470WR | C         | 16          | 47µF              | *       | .245    | .226    |
| 857397   | ECE-V1EA470UP | D2        | 25          | 47µF              | *       | .257    | .238    |
| 857573   | ECE-V1HA470UP | F         | 50          | 47µF              | .51     | .41     | .379    |
| 857637   | ECE-V1JA470UP | F         | 63          | 47µF              | .69     | .57     | .519    |
| 857098   | ECE-V0JA101SP | D         | 6.3         | 100µF             | *       | .254    | .235    |
| 919084   | ECE-V1AA101SP | D         | 10          | 100µF             | *       | .268    | .249    |
| 919172   | ECE-V1CA101P  | E         | 16          | 100µF             | *       | .382    | .372    |
| 919201   | ECE-V1CA101WP | D         | 16          | 100µF             | *       | .318    | .294    |
| 857725   | ECE-V1VA101P  | G         | 35          | 100µF             | .85     | .66     | .61     |
| 857750   | ECE-V1VA101XP | D8        | 35          | 100µF             | .61     | .477    | .441    |
| 919367   | ECE-V1HA101UP | F         | 50          | 100µF             | .55     | .452    | .417    |
| 919113   | ECE-V1AA221P  | E         | 10          | 220µF             | *       | .382    | .352    |
| 919295   | ECE-V1EA221UP | F         | 25          | 220µF             | .65     | .50     | .47     |
| 919391   | ECE-V1VA221UP | F         | 35          | 220µF             | .55     | .452    | .417    |
| 857514   | ECE-V1HA221P  | G         | 50          | 220µF             | .69     | .57     | .519    |
| 857266   | ECE-V1CA471P  | G         | 16          | 470µF             | .89     | .69     | .64     |
| 857303   | ECE-V1CA471UP | F         | 16          | 470µF             | .79     | .63     | .58     |
| 857426   | ECE-V1EA471P  | G         | 25          | 470µF             | .85     | .66     | .61     |
| 857127   | ECE-V0JA102P  | G         | 6.3         | 1000µF            | .65     | .512    | .473    |

⬆ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

Color Code Legend  
**New Sale Lower\$ QtySave**

### FK Series Aluminum Electrolytic Capacitors, Surface Mount

- Low impedance
- Tolerance: ±20%
- 30% to 50% smaller than FC Series
- Long life: 2,000 to 5,000 hours @ 105°C
- High CV volumetric efficiency
- Operating temperature range: -55°C to 105°C

**NEW**



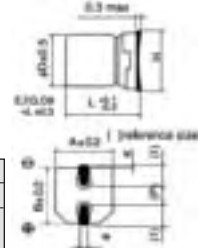
| Size Code | Dimensions (mm) |      |      |     |      |     |
|-----------|-----------------|------|------|-----|------|-----|
|           | D               | L    | A    | I   | W    | P   |
| B         | 3               | 5.4  | 3.3  | 1.5 | 0.55 | 0.6 |
| B         | 4               | 5.8  | 4.3  | 1.8 | 0.65 | 1   |
| C         | 5               | 5.8  | 5.3  | 2.2 | 0.65 | 1.5 |
| D         | 6.3             | 5.8  | 6.6  | 2.6 | 0.65 | 1.8 |
| H13       | 12.5            | 13.5 | 13.5 | 4.7 | 0.9  | 4.4 |

\* Prepackaged: please order in increments of 5

| Part No. | Product No.   | Size Code | Voltage (V) | Capacitance Value | Pricing |         |         |
|----------|---------------|-----------|-------------|-------------------|---------|---------|---------|
|          |               |           |             |                   | 1       | 5       | 50      |
| 861484   | EEV-FK1J4R7R  | C         | 63          | 4.7µF             | *       | \$ .226 | \$ .209 |
| 860983   | EEE-FK1J4R7R  | C         | 63          | 4.7µF             | *       | .226    | .209    |
| 861425   | EEV-FK1C100R  | B         | 16          | 10µF              | *       | .181    | .167    |
| 861011   | EEE-FK1V100R  | C         | 35          | 10µF              | *       | .215    | .199    |
| 920747   | EEV-FK1V100R  | C         | 35          | 10µF              | *       | .215    | .199    |
| 860959   | EEE-FK1H100P  | D         | 50          | 10µF              | *       | .254    | .235    |
| 861450   | EEV-FK1E220R  | C         | 25          | 22µF              | *       | .215    | .199    |
| 860924   | EEE-FK0J470R  | C         | 6.3         | 47µF              | *       | .215    | .199    |
| 861513   | EEV-FK1V470P  | D         | 35          | 47µF              | *       | .254    | .235    |
| 920798   | EEV-FK2A4700  | H13       | 100         | 47µF              | 1.39    | 1.09    | .99     |
| 861361   | EEV-FK0J101P  | D         | 6.3         | 100µF             | *       | .254    | .235    |
| 861396   | EEV-FK0J101UR | C         | 6.3         | 100µF             | *       | .215    | .199    |
| 860895   | EEE-FK0J101UR | C         | 6.3         | 100µF             | *       | .215    | .199    |
| 920712   | EEV-FK1C101P  | D         | 16          | 100µF             | *       | .254    | .235    |
| 920771   | EEV-FK1V471Q  | H13       | 35          | 470µF             | 1.35    | 1.05    | .95     |
| 861548   | EEV-FK1V681Q  | H13       | 35          | 680µF             | 1.35    | 1.05    | .95     |

### HA Series Aluminum Electrolytic Capacitors, Surface Mount

- Life time: 1,000 hours @ 105°C
- High CV volumetric efficiency
- Operating temperature range: -40°C to 105°C
- Capacitance tolerance: ±20%
- General purpose



**NEW**

| Size Code | Dimensions (mm) |        |       |     |           |             |
|-----------|-----------------|--------|-------|-----|-----------|-------------|
|           | Diameter        | Height | Width | I   | Pad Width | Pad Spacing |
| C         | 5.0             | 5.4    | 5.3   | 2.2 | 0.65      | 1.5         |
| D         | 6.3             | 5.4    | 6.6   | 2.6 | 0.65      | 1.8         |

\* Prepackaged: please order in increments of 5

| Part No. | Product No.   | Case Slize | Voltage (V) | Capacitance Value | Pricing |         |         |
|----------|---------------|------------|-------------|-------------------|---------|---------|---------|
|          |               |            |             |                   | 1       | 5       | 50      |
| 861601   | EEV-HA1H100P  | C          | 35          | 10µF              | *       | \$ .183 | \$ .169 |
| 861628   | EEV-HB1V100R  | D          | 50          | 10µF              | *       | .191    | .176    |
| 861572   | EEV-HA1C101WP | D          | 16          | 100µF             | *       | .216    | .199    |

# SMT Aluminum Electrolytic Capacitors (Continued)

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |



Tape



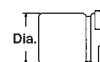
Individual

## Surface Mount Aluminum Electrolytic Capacitors

Leakage Current (20°C) after 2 minutes ≤ .01CV or 3μA

Operating Temperature Range: -40°C to +85°C

Please order in increments of 10



Side View



Bottom View

Please order in increments of 10

| Part No. | Cross Ref. No.†  | Value (μF) | Voltage (V) | Dia. (mm) | Pricing |        |        |
|----------|------------------|------------|-------------|-----------|---------|--------|--------|
|          |                  |            |             |           | 10      | 100    | 500    |
| 610802   | UWX1H0R1MCL1GB R | 0.1        | 50          | 4.0       | \$.108  | \$.096 | \$.091 |
| 610811   | UWX1H0R1MCL2GB R | 0.1        | 50          | 3.0       | .108    | .096   | .091   |
| 610829   | UWX1HR22MCL1GB R | 0.22       | 50          | 4.0       | .108    | .096   | .091   |
| 610837   | UWX1HR22MCL2GB R | 0.22       | 50          | 3.0       | .108    | .096   | .091   |
| 610845   | UWX1HR33MCL1GB R | 0.33       | 50          | 4.0       | .108    | .096   | .091   |
| 610853   | UWX1HR33MCL2GB R | 0.33       | 50          | 3.0       | .108    | .096   | .091   |
| 610861   | UWX1HR47MCL1GB R | 0.47       | 50          | 4.0       | .108    | .096   | .091   |
| 610870   | UWX1HR47MCL2GB R | 0.47       | 50          | 3.0       | .108    | .096   | .091   |
| 610888   | UWX1V2R2MCL2GB R | 2.2        | 35          | 4.0       | .103    | .096   | .088   |
| 610896   | UWX1V3R3MCL2GB R | 3.3        | 35          | 4.0       | .103    | .096   | .088   |
| 610909   | UWX1V4R7MCL1GB R | 4.7        | 35          | 4.0       | .103    | .096   | .088   |

| Part No. | Cross Ref. No.†  | Value (μF) | Voltage (V) | Dia. (mm) | Pricing |        |        |
|----------|------------------|------------|-------------|-----------|---------|--------|--------|
|          |                  |            |             |           | 10      | 100    | 500    |
| 610706   | UWX0G220MCL2GB R | 22         | 4           | 3.0       | \$.108  | \$.096 | \$.091 |
| 610773   | UWX1A220MCL1GB R | 22         | 10          | 4.0       | .103    | .096   | .091   |
| 610722   | UWX0G330MCL1GB R | 33         | 4           | 4.0       | .108    | .096   | .091   |
| 610749   | UWX0J330MCL1GB R | 33         | 6.3         | 4.0       | .113    | .096   | .091   |
| 610781   | UWX1A330MCL1GB R | 33         | 10          | 4.0       | .113    | .096   | .091   |
| 610731   | UWX0G470MCL1GB R | 47         | 4           | 4.0       | .108    | .096   | .091   |
| 610757   | UWX0J470MCL1GB R | 47         | 6.3         | 5.0       | .108    | .096   | .091   |
| 610790   | UWX1A470MCL1GB R | 47         | 10          | 5.0       | .113    | .096   | .091   |
| 610693   | UWX0G101MCL1GB R | 100        | 4           | 5.0       | .113    | .096   | .091   |
| 610765   | UWX1A101MCL1GB R | 100        | 10          | 6.3       | .113    | .096   | .091   |
| 610714   | UWX0G221MCL1GB R | 220        | 4           | 6.3       | .146    | .136   | .104   |

Operating Temperature Range: -55°C to +105°C

\* Prepackaged: please order in increments of 10

| Part No. | Cross Ref. No.†  | Value (μF) | Voltage (V) | Dia. (mm) | Pricing |        |        |        |
|----------|------------------|------------|-------------|-----------|---------|--------|--------|--------|
|          |                  |            |             |           | 1       | 10     | 100    | 500    |
| 610431   | UWT1H0R1MCL1GB R | 0.1        | 50          | 4.0       | *       | \$.116 | \$.108 | \$.098 |
| 610546   | UWT1HR22MCL1GB R | 0.22       | 50          | 4.0       | *       | .116   | .108   | .098   |
| 610562   | UWT1HR33MCL1GB R | 0.33       | 50          | 4.0       | *       | .116   | .108   | .098   |
| 610589   | UWT1HR47MCL1GB R | 0.47       | 50          | 4.0       | *       | .116   | .108   | .098   |
| 610423   | UWT1H010MCL1GB R | 1          | 50          | 4.0       | *       | .116   | .108   | .098   |
| 608631   | UUD1H010MCL1GS R | 1          | 50          | 4.0       | .42     | .367   | .343   | .29    |
| 610634   | UWT1V2R2MCL2GB R | 2.2        | 35          | 4.0       | *       | .116   | .108   | .098   |
| 610491   | UWT1H2R2MCL1GB R | 2.2        | 50          | 4.0       | *       | .116   | .108   | .098   |
| 608665   | UUD1H2R2MCL1GS R | 2.2        | 50          | 4.0       | .42     | .367   | .343   | .29    |
| 610669   | UWT1V3R3MCL2GB R | 3.3        | 35          | 4.0       | *       | .134   | .12    | .098   |
| 608681   | UUD1H3R3MCL1GS R | 3.3        | 50          | 4.0       | .42     | .367   | .343   | .29    |
| 610407   | UWT1E4R7MCL1GB R | 4.7        | 25          | 4.0       | *       | .116   | .108   | .08    |
| 610685   | UWT1V4R7MCL1GB R | 4.7        | 35          | 4.0       | *       | .149   | .12    | .098   |
| 608788   | UUD1V4R7MCL1GS R | 4.7        | 35          | 4.0       | .42     | .367   | .343   | .29    |
| 610538   | UWT1H4R7MCL1GB R | 4.7        | 50          | 5.0       | *       | .149   | .139   | .118   |
| 608702   | UUD1H4R7MCL1GS R | 4.7        | 50          | 4.0       | .47     | .403   | .386   | .325   |
| 610263   | UWT1C100MCL1GB R | 10         | 16          | 4.0       | *       | .116   | .108   | .098   |
| 610343   | UWT1E100MCL1GB R | 10         | 25          | 5.0       | .20     | .164   | .144   | .096   |
| 610600   | UWT1V100MCL1GB R | 10         | 35          | 5.0       | .20     | .164   | .144   | .096   |
| 608729   | UUD1V100MCL1GS R | 10         | 35          | 5.0       | .47     | .413   | .386   | .326   |
| 610458   | UWT1H100MCL1GB R | 10         | 50          | 6.3       | .20     | .164   | .152   | .096   |
| 608649   | UUD1H100MCL1GS R | 10         | 50          | 6.3       | .51     | .431   | .408   | .352   |
| 610108   | UWTOG220MCL1GB R | 22         | 4           | 4.0       | *       | .116   | .108   | .098   |
| 610167   | UWTOJ220MCL1GB R | 22         | 6.3         | 4.0       | *       | .116   | .108   | .098   |
| 610239   | UWT1A220MCL1GB R | 22         | 10          | 4.0       | *       | .149   | .139   | .118   |
| 608489   | UUD1A220MCL1GS R | 22         | 10          | 4.0       | .42     | .367   | .343   | .29    |
| 610298   | UWT1C220MCL1GB R | 22         | 16          | 5.0       | .20     | .167   | .144   | .096   |
| 610351   | UWT1E220MCL1GB R | 22         | 25          | 5.0       | .20     | .177   | .152   | .096   |
| 608577   | UUD1E220MCL1GS R | 22         | 25          | 22.0      | .47     | .413   | .386   | .326   |
| 610618   | UWT1V220MCL1GB R | 22         | 35          | 6.3       | .20     | .177   | .152   | .096   |
| 608745   | UUD1V220MCL1GS R | 22         | 35          | 5.0       | .47     | .403   | .386   | .325   |
| 610474   | UWT1H220MCL1GB R | 22         | 50          | 6.3       | .26     | .213   | .184   | .18    |
| 610124   | UWTOG330MCL1GB R | 33         | 4           | 4.0       | *       | .116   | .108   | .103   |
| 610183   | UWTOJ330MCL1GB R | 33         | 6.3         | 4.0       | *       | .116   | .108   | .103   |
| 610247   | UWT1A330MCL1GB R | 33         | 10          | 5.0       | *       | .149   | .139   | .118   |
| 608497   | UUD1A330MCL1GS R | 33         | 10          | 5.0       | .47     | .413   | .386   | .326   |
| 610319   | UWT1C330MCL1GB R | 33         | 16          | 5.0       | .20     | .167   | .152   | .096   |
| 610360   | UWT1E330MCL1GB R | 33         | 25          | 6.3       | .20     | .187   | .152   | .096   |
| 608585   | UUD1E330MCL1GS R | 33         | 25          | 6.3       | .51     | .447   | .418   | .352   |
| 610642   | UWT1V330MCL1GB R | 33         | 35          | 6.3       | .26     | .213   | .184   | .12    |
| 608753   | UUD1V330MCL1GS R | 33         | 35          | 6.3       | .51     | .447   | .418   | .352   |
| 610511   | UWT1H330MCL1GB R | 33         | 50          | 6.3       | .28     | .258   | .236   | .225   |
| 610204   | UWTOJ470MCL1GB R | 47         | 6.3         | 5.0       | *       | .136   | .127   | .118   |
| 608446   | UUD0J470MCL1GS R | 47         | 6.3         | 5.0       | .47     | .413   | .386   | .326   |
| 610255   | UWT1A470MCL1GB R | 47         | 10          | 5.0       | .20     | .164   | .152   | .096   |

\* Prepackaged: please order in increments of 10

| Part No. | Cross Ref. No.†  | Value (μF) | Voltage (V) | Dia. (mm) | Pricing |        |        |        |
|----------|------------------|------------|-------------|-----------|---------|--------|--------|--------|
|          |                  |            |             |           | 1       | 10     | 100    | 500    |
| 610335   | UWT1C470MCL1GB R | 47         | 16          | 6.3       | \$.20   | \$.177 | \$.152 | \$.096 |
| 608534   | UUD1C470MCL1GS R | 47         | 16          | 6.3       | .51     | .447   | .418   | .352   |
| 610386   | UWT1E470MCL1GB R | 47         | 25          | 6.3       | .26     | .213   | .185   | .176   |
| 608606   | UUD1E470MCL1GS R | 47         | 25          | 6.3       | .51     | .447   | .418   | .352   |
| 610677   | UWT1V470MCL1GB R | 47         | 35          | 6.3       | .27     | .213   | .199   | .168   |
| 608770   | UUD1V470MCL1GS R | 47         | 35          | 6.3       | .51     | .431   | .408   | .352   |
| 610520   | UWT1H470MCL1GB R | 47         | 50          | 6.3       | .27     | .253   | .239   | .225   |
| 608518   | UUD1A680MCL1GS R | 68         | 10          | —         | .51     | .447   | .418   | .352   |
| 608542   | UUD1C680MCL1GS R | 68         | 16          | 6.3       | .51     | .447   | .418   | .352   |
| 608622   | UUD1E680MCL1GS R | 68         | 25          | 6.3       | .51     | .447   | .418   | .352   |
| 608796   | UUD1V680MCL1GS R | 68         | 35          | 6.3       | .54     | .472   | .442   | .224   |
| 608711   | UUD1H680MCL1GS R | 68         | 50          | 8.0       | .65     | .57    | .53    | .269   |
| 610095   | UWTOG101MCL1GB R | 100        | 4           | 6.3       | *       | .146   | .137   | .118   |
| 608403   | UUD0J101MCL1GS R | 100        | 6.3         | 6.3       | .51     | .447   | .418   | .352   |
| 610132   | UWT0J101MCL1GB R | 100        | 6.3         | 6.3       | *       | .146   | .137   | .118   |
| 608462   | UUD1A101MCL1GS R | 100        | 10          | —         | .51     | .447   | .418   | .352   |
| 610280   | UWT1C101MCL1GB R | 100        | 16          | 7.0       | .23     | .21    | .189   | .17    |
| 608569   | UUD1E101MCL1GS R | 100        | 25          | 6.3       | .54     | .472   | .442   | .224   |
| 608737   | UUD1V101MCL1GS R | 100        | 35          | 8.0       | .65     | .57    | .53    | .269   |
| 610466   | UUD1H101MCL1GS R | 100        | 50          | 8.0       | .35     | .27    | .252   | .23    |
| 608657   | UUD1H101MCL1GS R | 100        | 50          | 8.0       | .62     | .518   | .492   | .269   |
| 610116   | UWTOG221MCL1GB R | 220        | 4           | 6.3       | .26     | .213   | .184   | .12    |
| 610175   | UWTOJ221MCL1GB R | 220        | 6.3         | 6.3       | .22     | .213   | .16    | .128   |
| 608438   | UUD0J221MCL1GS R | 220        | 6.3         | 6.3       | .51     | .447   | .418   | .352   |
| 608526   | UUD1C221MCL1GS R | 220        | 16          | 6.3       | .54     | .472   | .442   | .224   |
| 610301   | UWT1C221MCL1GS R | 220        | 16          | 6.3       | .27     | .213   | .199   | .104   |
| 610626   | UWT1V221MCL1GS R | 220        | 35          | 8.0       | .34     | .321   | .248   | .23    |
| 610482   | UWT1H221MCL1GS R | 220        | 50          | 10.0      | .43     | .331   | .31    | .276   |
| 610191   | UWTOJ331MCL1GS R | 330        | 6.3         | 6.3       | .27     | .213   | .199   | .122   |
| 610327   | UWT1C331MCL1GS R | 330        | 16          | 8.0       | .33     | .30    | .27    | .243   |
| 610378   | UWT1E331MCL1GS R | 330        | 25          | 8.0       | .33     | .257   | .242   | .23    |
| 610651   | UWT1V331MCL1GS R | 330        | 35          | 10.0      | .43     | .331   | .31    | .272   |
| 608761   | UUD1V331MCL1GS R | 330        | 35          | 10.0      | .70     | .61    | .57    | .289   |
| 610212   | UUD0J471MCL1GS R | 470        | 6.3         | 8.0       | .33     | .257   | .24    | .199   |
| 608500   | UUD1A471MCL1GS R | 470        | 10          | 8.0       | .65     | .57    | .53    | .269   |
| 610394   | UWT1E471MCL1GS R | 470        | 25          | 10.0      | .43     | .331   | .31    | .26    |
| 608614   | UUD1E471MCL1GS R | 470        | 25          | 10.0      | .75     | .62    | .58    | .304   |
| 610221   | UUD0J681MCL1GS R | 680        | 6.3         | 8.0       | .33     | .257   | .24    | .199   |
| 608454   | UUD0J681MCL1GS R | 680        | 6.3         | 8.0       | .65     | .57    | .53    | .269   |
| 608551   | UUD1C681MCL1GS R | 680        | 16          | 10.0      | .70     | .61    | .57    | .289   |
| 610141   | UWTOJ102MCL1GS R | 1000       | 6.3         | 8.0       | .33     | .257   | .24    | .23    |
| 608411   | UUD0J102MCL1GS R | 1000       | 6.3         | 8.0       | .65     | .57    | .53    | .269   |
| 608471   | UUD1A102MCL1GS R | 1000       | 10          | 10.0      | .68     | .58    | .55    | .289   |
| 610159   | UWTOJ152MCL1GS R | 1500       | 6.3         | 10.0      | .43     | .331   | .31    | .276   |
| 608420   | UUD0J152MCL1GS R | 1500       | 6.3         | 10.0      | .70     | .61    | .57    | .323   |

† Cross Reference: Panasonic: VS Series

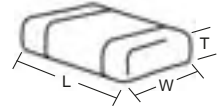
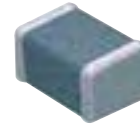
RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.





**NEW**

## Surface Mount Ceramic Capacitors

























| Size          | 0402 Case Size                  | 0603 Case Size                  | 0805 Case Size                  |
|---------------|---------------------------------|---------------------------------|---------------------------------|
| Length (L)    | 1.0mm ±0.10mm (0.40" ±0.004")   | 1.60 ±0.15 (0.063" ±0.006")     | 2.01mm ±0.20mm (0.79" ±0.008")  |
| Width (W)     | 0.50mm ±0.10mm (0.020" ±0.004") | 0.81mm ±0.15mm (0.032" ±0.006") | 1.25mm ±0.20mm (0.049" ±0.008") |
| Thickness (T) | 0.50mm ±0.05mm (0.20" ±0.006")  | 0.80mm ±0.10mm (0.030" ±0.006") | 1.25mm ±0.20mm (0.020" ±0.010") |
| Size          | 1206 Case Size                  | 1210 Case Size                  | 1812 Case Size                  |
| Length (L)    | 3.2mm ±0.20mm (0.126" ±0.008")  | 3.2mm ±0.20mm (0.126" ±0.008")  | 4.5mm ±0.30mm (0.177" ±0.012")  |
| Width (W)     | 1.60mm ±0.20mm (0.063" ±0.008") | 2.5mm ±0.20mm (0.098" ±0.008")  | 3.2mm ±0.20mm (0.126" ±0.008")  |
| Thickness (T) | 0.50mm ±0.25mm (0.020" ±0.10")  | Refer to Datasheet              | Refer to Datasheet              |

|                           |                             |
|---------------------------|-----------------------------|
| Temperature Coefficient : | COG (NP0) = -55°C to +125°C |
|                           | X7R = -55°C to +125°C       |
|                           | X5R = -55°C to +85°C        |
|                           | Y5V = -30°C to +85°C        |






















### Size 0402 Multilayer Ceramic Chips

Prepackaged: please order in increments of 5

| Part No. | Product No.  | Temp. Coeff. | Value   | Voltage (V) | Tolerance | Pricing |        |
|----------|--|--------------|---------|-------------|-----------|---------|--------|
|          |  |              |         |             |           | 5       | 50     |
| 765661   | 04025A4R7CAT2A    | NP0          | 4.7pF   | 50          | 0.25pF    | \$.053  | \$.051 |
| 765679   | 04025A6R8CAT2A    | NP0          | 6.8pF   | 50          | 0.25pF    | .053    | .051   |
| 734821   | 04025A100JAT2A    | NP0          | 10pF    | 50          | 5%        | .024    | .023   |
| 765601   | 04025A100KAT2A    | NP0          | 10pF    | 50          | 10%       | .053    | .051   |
| 765628   | 04025A150JAT2A    | NP0          | 15pF    | 50          | 5%        | .053    | .051   |
| 765636   | 04025A180JAT2A    | NP0          | 18pF    | 50          | 5%        | .053    | .051   |
| 765644   | 04025A220JAT2A    | NP0          | 22pF    | 50          | 5%        | .053    | .051   |
| 734848   | 04025A270JAT2A    | NP0          | 27pF    | 50          | 5%        | .106    | .063   |
| 765652   | 04025A330JAT2A    | NP0          | 33pF    | 50          | 5%        | .053    | .051   |
| 734856   | 04025A470JAT2A    | NP0          | 47pF    | 50          | 5%        | .024    | .023   |
| 734864   | 04025A680JAT2A    | NP0          | 68pF    | 50          | 5%        | .106    | .063   |
| 765610   | 04025A101KAT2A    | NP0          | 100pF   | 50          | 10%       | .053    | .051   |
| 734830   | 04025A151JAT2A   | NP0          | 150pF   | 25          | 5%        | .109    | .106   |
| 734813   | 04023A221JAT2A  | NP0          | 220pF   | 25          | 5%        | .053    | .051   |
| 734901   | 0402YD473KAT2A  | X5R          | 0.047µF | 16          | 10%       | .053    | .051   |
| 765708   | 04026D104KAT2A  | X5R          | 0.1µF   | 6.3         | 10%       | .132    | .129   |
| 734910   | 0402ZD104KAT2A  | X5R          | 0.1µF   | 10          | 10%       | .132    | .129   |
| 734881   | 0402YC102KAT2A  | X7R          | 1000pF  | 16          | 10%       | .053    | .051   |
| 734872   | 04025C102JAT2A  | X7R          | 1000pF  | 50          | 5%        | .067    | .064   |
| 765687   | 04025C152KAT2A  | X7R          | 1500pF  | 50          | 10%       | .053    | .051   |
| 765695   | 04025C332KAT2A  | X7R          | 3300pF  | 50          | 10%       | .106    | .063   |
| 734899   | 0402YC223KAT2A  | X7R          | 0.022µF | 16          | 10%       | .067    | .064   |








































### Size 0603 Multilayer Ceramic Chips

Prepackaged: please order in increments of 5

| Part No. | Product No.  | Temp. Coeff. | Value | Voltage (V) | Tolerance | Pricing |        |
|----------|--|--------------|-------|-------------|-----------|---------|--------|
|          |  |              |       |             |           | 5       | 50     |
| 766031   | 06035A0R5CAT2A  | NP0          | 0.5pF | 50          | 0.25pF    | \$.035  | \$.033 |
| 735111   | 06035A1R0CAT2A  | NP0          | 1pF   | 50          | 0.25pF    | .036    | .035   |
| 766073   | 06035A1R5CAT2A  | NP0          | 1.5pF | 50          | 0.25pF    | .038    | .036   |
| 735120   | 06035A1R8CAT2A  | NP0          | 1.8pF | 50          | 0.25pF    | .021    | .02    |
| 766111   | 06035A2R0CAT2A  | NP0          | 2pF   | 50          | 0.25pF    | .036    | .035   |
| 735171   | 06035A2R2CAT2A  | NP0          | 2.2pF | 50          | 0.25pF    | .035    | .033   |
| 765767   | 06031A2R2CAT2A  | NP0          | 2.2pF | 100         | 0.25pF    | .036    | .035   |
| 766129   | 06035A2R7CAT2A  | NP0          | 2.7pF | 50          | 0.25pF    | .055    | .053   |
| 765775   | 06031A2R7CAT2A  | NP0          | 2.7pF | 100         | 0.25pF    | .055    | .053   |
| 766145   | 06035A3R0CAT2A  | NP0          | 3pF   | 50          | 0.25pF    | .035    | .033   |
| 735189   | 06035A3R3CAT2A  | NP0          | 3.3pF | 50          | 0.25pF    | .035    | .033   |
| 765804   | 06031A3R3CAT2A  | NP0          | 3.3pF | 100         | 0.25pF    | .036    | .035   |
| 735197   | 06035A3R9CAT2A  | NP0          | 3.9pF | 50          | 0.25pF    | .036    | .035   |
| 766153   | 06035A4R0CAT2A  | NP0          | 4pF   | 50          | 0.25pF    | .035    | .033   |
| 735234   | 06035A4R7CAT2A  | NP0          | 4.7pF | 50          | 0.25pF    | .036    | .035   |
| 766170   | 06035A5R0CAT2A  | NP0          | 5pF   | 50          | 0.25pF    | .036    | .035   |
| 735251   | 06035A5R6CAT2A  | NP0          | 5.6pF | 50          | 0.25pF    | .035    | .033   |
| 766188   | 06035A5R6DAT2A  | NP0          | 5.6pF | 50          | 0.5pF     | .034    | .033   |
| 766196   | 06035A6R0CAT2A  | NP0          | 6pF   | 50          | 0.25pF    | .036    | .035   |
| 766209   | 06035A6R0DAT2A  | NP0          | 6pF   | 50          | 0.5pF     | .034    | .033   |
| 735277   | 06035A6R8CAT2A  | NP0          | 6.8pF | 50          | 0.25pF    | .19     | .119   |
| 765821   | 06031A6R8DAT2A  | NP0          | 6.8pF | 100         | 0.5pF     | .02     | .019   |
| 765839   | 06031A8R0CAT2A  | NP0          | 8pF   | 100         | 0.25pF    | .036    | .035   |
| 735285   | 06035A8R2CAT2A  | NP0          | 8.2pF | 50          | 0.25pF    | .036    | .035   |
| 735040   | 06035A100CAT2A  | NP0          | 10pF  | 50          | 0.25pF    | .035    | .033   |
| 735058   | 06035A100DAT2A  | NP0          | 10pF  | 50          | 0.5pF     | .033    | .032   |
| 735066   | 06035A100KAT2A  | NP0          | 10pF  | 50          | 10%       | .032    | .031   |

### Size 0603 Multilayer Ceramic Chips (Continued)

Prepackaged: please order in increments of 5

| Part No. | Product No.  | Temp.<br>Coeff. | Value  | Voltage<br>(V) | Tolerance | Pricing |        |
|----------|--|-----------------|--------|----------------|-----------|---------|--------|
|          |  |                 |        |                |           | 5       | 50     |
| 765716   | 06031A100KAT2A    | NPO             | 10pF   | 100            | 10%       | \$.02   | \$.019 |
| 766049   | 06035A120KAT2A    | NPO             | 12pF   | 50             | 10%       | .032    | .031   |
| 765927   | 06033A150JAT2A    | NPO             | 15pF   | 25             | 5%        | .034    | .033   |
| 734928   | 06031A150JAT2A    | NPO             | 15pF   | 100            | 5%        | .02     | .019   |
| 766065   | 06035A180KAT2A    | NPO             | 18pF   | 50             | 10%       | .032    | .031   |
| 765741   | 06031A180JAT2A    | NPO             | 18pF   | 100            | 5%        | .02     | .019   |
| 735138   | 06035A200JAT2A    | NPO             | 20pF   | 50             | 5%        | .034    | .033   |
| 765935   | 06033A220JAT2A    | NPO             | 22pF   | 25             | 5%        | .034    | .033   |
| 735146   | 06035A220KAT2A    | NPO             | 22pF   | 50             | 10%       | .032    | .031   |
| 765759   | 06031A220KAT2A    | NPO             | 22pF   | 100            | 10%       | .02     | .019   |
| 735154   | 06035A270FAT2A    | NPO             | 27pF   | 50             | 1%        | .106    | .105   |
| 735162   | 06035A270JAT2A    | NPO             | 27pF   | 50             | 5%        | .153    | .107   |
| 766090   | 06035A270KAT2A    | NPO             | 27pF   | 50             | 10%       | .032    | .031   |
| 766137   | 06035A330KAT2A    | NPO             | 33pF   | 50             | 10%       | .032    | .031   |
| 765783   | 06031A330KAT2A   | NPO             | 33pF   | 100            | 10%       | .02     | .019   |
| 765791   | 06031A390JAT2A  | NPO             | 39pF   | 100            | 5%        | .033    | .032   |
| 765943   | 06033A470KAT2A  | NPO             | 47pF   | 25             | 10%       | .032    | .031   |
| 735200   | 06035A470KAT2A  | NPO             | 47pF   | 50             | 10%       | .032    | .031   |
| 734944   | 06031A470JAT2A  | NPO             | 47pF   | 100            | 5%        | .033    | .032   |
| 766161   | 06035A510JAT2A  | NPO             | 51pF   | 50             | 5%        | .034    | .033   |
| 735242   | 06035A560JAT2A  | NPO             | 56pF   | 50             | 5%        | .033    | .032   |
| 765812   | 06031A560JAT2A  | NPO             | 56pF   | 100            | 5%        | .033    | .032   |
| 735269   | 06035A680JAT2A  | NPO             | 68pF   | 50             | 5%        | .079    | .076   |
| 766321   | 0603YA820KAT2A  | NPO             | 82pF   | 16             | 10%       | .032    | .031   |
| 734979   | 06033A101JAT2A  | NPO             | 100pF  | 25             | 5%        | .033    | .032   |
| 765919   | 06033A101KAT2A  | NPO             | 100pF  | 25             | 5%        | .032    | .031   |
| 735074   | 06035A101JAT2A  | NP0             | 100pF  | 50             | 5%        | .025    | .024   |
| 735082   | 06035A101KAT2A  | NPO             | 100pF  | 50             | 10%       | .055    | .053   |
| 765724   | 06031A101KAT2A  | NPO             | 100pF  | 100            | 10%       | .02     | .019   |
| 766057   | 06035A151KAT2A  | NPO             | 150pF  | 50             | 10%       | .036    | .035   |
| 765732   | 06031A151JAT2A  | NPO             | 150pF  | 100            | 5%        | .037    | .035   |
| 735103   | 06035A181JAT2A  | NPO             | 180pF  | 50             | 5%        | .037    | .035   |
| 766081   | 06035A221KAT2A  | NPO             | 220pF  | 50             | 10%       | .036    | .035   |
| 734936   | 06031A221JAT2A  | NPO             | 220pF  | 100            | 5%        | .038    | .037   |
| 766102   | 06035A271KAT2A  | NPO             | 270pF  | 50             | 10%       | .036    | .035   |
| 735218   | 06035A471JAT2A  | NPO             | 470pF  | 50             | 5%        | .049    | .047   |
| 735226   | 06035A471KAT2A  | NPO             | 470pF  | 50             | 10%       | .048    | .046   |
| 734987   | 06033A102JAT2A  | NPO             | 1000pF | 25             | 5%        | .058    | .056   |
| 735091   | 06035A102JAT2A  | NPO             | 1000pF | 50             | 5%        | .035    | .033   |
| 735648   | 0603YD474KAT2A  | X5R             | .47µF  | 16             | 10%       | .124    | .119   |
| 735517   | 06036D105KAT2A  | X5R             | 1µF    | 6.3            | 10%       | .131    | .127   |
| 735630   | 0603YD105KAT2A  | X5R             | 1µF    | 16             | 10%       | .079    | .075   |
| 735525   | 0603YC101KAT2A  | X7R             | 100pF  | 16             | 10%       | .033    | .031   |
| 735293   | 06035C101KAT2A  | X7R             | 100pF  | 50             | 10%       | .079    | .067   |
| 765847   | 06031C101KAT2A  | X7R             | 100pF  | 100            | 10%       | .034    | .033   |
| 766225   | 06035C181KAT2A  | X7R             | 180pF  | 50             | 10%       | .034    | .033   |
| 765978   | 06033C221MAT2A  | X7R             | 220pF  | 25             | 20%       | .032    | .031   |
| 735381   | 06035C221KAT2A  | X7R             | 220pF  | 50             | 10%       | .034    | .033   |
| 766241   | 06035C221MAT2A  | X7R             | 220pF  | 50             | 20%       | .032    | .031   |
| 766330   | 0603YC333KAT4A  | X7R             | 330pF  | 16             | 10%       | .046    | .044   |
| 735429   | 06035C331KAT2A  | X7R             | 330pF  | 50             | 10%       | .033    | .032   |
| 765880   | 06031C331KAT2A  | X7R             | 330pF  | 100            | 10%       | .02     | .019   |
| 734961   | 06031C471KAT2A  | X7R             | 470pF  | 100            | 10%       | .02     | .019   |



NEW

## Surface Mount Ceramic Capacitors (Continued)

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## Size 0603 Multilayer Ceramic Chips (Continued)

Prepackaged: please order  
in increments of 5

| Part No. | Product No.                        | Temp.<br>Coeff. | Value   | Voltage<br>(V) | Tolerance | Pricing |        |
|----------|------------------------------------|-----------------|---------|----------------|-----------|---------|--------|
|          |                                    |                 |         |                |           | 5       | 50     |
| 766276   | 06035C561KAT2A <b>R</b> <b>▲</b>   | X7R             | 560pF   | 50             | 10%       | \$.034  | \$.033 |
| 735496   | 06035C681KAT2A <b>R</b> <b>▲</b>   | X7R             | 680pF   | 50             | 10%       | .033    | .031   |
| 765898   | 06031C681JAT2A <b>R</b> <b>▲</b>   | X7R             | 680pF   | 100            | 5%        | .048    | .046   |
| 765901   | 06031C681KAT2A <b>R</b> <b>▲</b>   | X7R             | 680pF   | 100            | 10%       | .033    | .031   |
| 766348   | 06032C102KAT2A <b>R</b> <b>▲</b>   | X7R             | 1000pF  | 10             | 10%       | .034    | .033   |
| 735533   | 0603YC102KAT2A <b>R</b> <b>▲</b>   | X7R             | 1000pF  | 16             | 10%       | .034    | .033   |
| 734995   | 06033C102KAT2A <b>R</b> <b>▲</b>   | X7R             | 1000pF  | 25             | 10%       | .033    | .031   |
| 765951   | 06033C102MAT2A <b>R</b> <b>▲</b>   | X7R             | 1000pF  | 25             | 20%       | .034    | .033   |
| 735306   | 06035C102JAT2A <b>R</b> <b>▲</b>   | X7R             | 1000pF  | 50             | 5%        | .023    | .021   |
| 766217   | 06035C102KAT4A <b>R</b> <b>▲</b>   | X7R             | 1000pF  | 50             | 10%       | .019    | .017   |
| 735314   | 06035C102MAT2A <b>R</b> <b>▲</b>   | X7R             | 1000pF  | 50             | 20%       | .032    | .031   |
| 765855   | 06031C102JAT2A <b>R</b> <b>▲</b>   | X7R             | 1000pF  | 100            | 5%        | .048    | .046   |
| 735357   | 06035C122KAT2A <b>R</b> <b>▲</b>   | X7R             | 1200pF  | 50             | 0%        | .033    | .031   |
| 735365   | 06035C152KAT2A <b>R</b> <b>▲</b>   | X7R             | 1500pF  | 50             | 10%       | .055    | .051   |
| 734952   | 06031C152KAT2A <b>R</b> <b>▲</b>   | X7R             | 1500pF  | 100            | 10%       | .033    | .031   |
| 766233   | 06035C182KAT2A <b>R</b> <b>▲</b>   | X7R             | 1800pF  | 50             | 10%       | .033    | .031   |
| 765871   | 06031C182KAT2A <b>R</b> <b>▲</b>   | X7R             | 1800pF  | 100            | 10%       | .034    | .033   |
| 735584   | 0603YC222KAT2A <b>R</b> <b>▲</b>   | X7R             | 2200pF  | 16             | 10%       | .034    | .033   |
| 765986   | 06033C222KAT2A <b>▲</b>            | X7R             | 2200pF  | 25             | 10%       | .034    | .033   |
| 735390   | 06035C222JAT2A <b>R</b> <b>▲</b>   | X7R             | 2200pF  | 50             | 5%        | .048    | .046   |
| 735402   | 06035C222KAT2A <b>R</b> <b>▲</b>   | X7R             | 2200pF  | 50             | 10%       | .033    | .031   |
| 766250   | 06035C222MAT2A <b>R</b> <b>▲</b>   | X7R             | 2200pF  | 50             | 20%       | .034    | .033   |
| 766268   | 06035C272KAT2A <b>R</b> <b>▲</b>   | X7R             | 2700pF  | 50             | 10%       | .034    | .033   |
| 766006   | 06033C332KAT2A <b>R</b> <b>▲</b>   | X7R             | 3300pF  | 25             | 10%       | .034    | .033   |
| 735437   | 06035C332JAT2A <b>R</b> <b>▲</b>   | X7R             | 3300pF  | 50             | 5%        | .048    | .046   |
| 735445   | 06035C332KAT2A <b>R</b> <b>▲</b>   | X7R             | 3300pF  | 50             | 10%       | .033    | .031   |
| 735461   | 06035C392KAT2A <b>R</b> <b>▲</b>   | X7R             | 3900pF  | 50             | 10%       | .02     | .019   |
| 766022   | 06033C472KAT2A <b>R</b> <b>▲</b>   | X7R             | 4700pF  | 25             | 10%       | .033    | .031   |
| 735470   | 06035C472JAT2A <b>R</b> <b>▲</b>   | X7R             | 4700pF  | 50             | 5%        | .024    | .023   |
| 735488   | 06035C472KAT2A <b>R</b> <b>▲</b>   | X7R             | 4700pF  | 50             | 10%       | .079    | .067   |
| 766284   | 06035C562KAT2A <b>R</b> <b>▲</b>   | X7R             | 5600pF  | 50             | 10%       | .034    | .033   |
| 766292   | 06035C682KAT2A <b>R</b> <b>▲</b>   | X7R             | 6800pF  | 50             | 10%       | .034    | .033   |
| 766305   | 06035C822KAT2A <b>R</b> <b>▲</b>   | X7R             | 8200pF  | 50             | 10%       | .034    | .033   |
| 766356   | 06032C103MAT2A <b>R</b> <b>▲</b>   | X7R             | 0.01µF  | 10             | 20%       | .032    | .031   |
| 735541   | 0603YC103KAT2A <b>▲</b>            | X7R             | 0.01µF  | 16             | 10%       | .15     | .126   |
| 735007   | 06033C103KAT2A <b>R</b> <b>▲</b>   | X7R             | 0.01µF  | 25             | 10%       | .033    | .031   |
| 735015   | 06033C103MAT2A <b>R</b> <b>▲</b>   | X7R             | 0.01µF  | 25             | 20%       | .032    | .031   |
| 735322   | 06035C103JAT2A <b>R</b> <b>▲</b>   | X7R             | 0.01µF  | 50             | 5%        | .047    | .045   |
| 735331   | 06035C103KAT4A <b>R</b> <b>▲</b>   | X7R             | 0.01µF  | 50             | 10%       | .033    | .031   |
| 735349   | 06035C103MAT2A <b>R</b> <b>▲</b>   | X7R             | 0.01µF  | 50             | 20%       | .031    | .029   |
| 765863   | 06031C103JAT2A <b>R</b> <b>▲</b>   | X7R             | 0.01µF  | 100            | 5%        | .048    | .046   |
| 765960   | 06033C153JAT2A <b>R</b> <b>▲</b>   | X7R             | 0.015µF | 25             | 5%        | .062    | .06    |
| 735373   | 06035C153JAT2A <b>R</b> <b>▲</b>   | X7R             | 0.015µF | 50             | 5%        | .062    | .061   |
| 735592   | 0603YC223KAT2A <b>R</b> <b>▲</b>   | X7R             | 0.022µF | 16             | 10%       | .046    | .044   |
| 765994   | 06033C223JAT2A <b>R</b> <b>▲</b>   | X7R             | 0.022µF | 25             | 5%        | .062    | .06    |
| 735023   | 06033C223KAT2A <b>R</b> <b>▲</b>   | X7R             | 0.022µF | 25             | 10%       | .019    | .018   |
| 735411   | 06035C273KAT2A <b>R</b> <b>▲</b>   | X7R             | 0.027µF | 50             | 10%       | .047    | .046   |
| 735605   | 0603YC333KAT2A <b>R</b> <b>▲</b>   | X7R             | 0.033µF | 16             | 10%       | .046    | .044   |
| 766014   | 06033C333JAT2A <b>R</b> <b>▲</b>   | X7R             | 0.033µF | 25             | 5%        | .062    | .06    |
| 735031   | 06033C333KAT2A <b>R</b> <b>▲</b>   | X7R             | 0.033µF | 25             | 10%       | .046    | .044   |
| 735453   | 06035C333KAT2A <b>R</b> <b>▲</b>   | X7R             | 0.033µF | 50             | 10%       | .046    | .044   |
| 735613   | 0603YC473KAT2A <b>R</b> <b>▲</b>   | X7R             | 0.047µF | 16             | 10%       | .15     | .12    |
| 735621   | 0603YC683KAT2A <b>R</b> <b>▲</b>   | X7R             | 0.068µF | 16             | 10%       | .064    | .062   |
| 735550   | 0603YC104JAT2A <b>R</b> <b>▲</b>   | X7R             | 0.1µF   | 16             | 5%        | .014    | .013   |
| 735568   | 0603YC104KAT4A <b>R</b> <b>▲</b>   | X7R             | 0.1µF   | 16             | 10%       | .08     | .07    |
| 735576   | 0603YC104MAT2A <b>R</b> <b>▲</b>   | X7R             | 0.1µF   | 16             | 20%       | .062    | .06    |
| 735664   | 0603C224KAT2A <b>R</b> <b>▲</b>    | X7R             | 0.22µF  | 10             | 10%       | .056    | .054   |
| 735672   | 0603C224MAT2A <b>R</b> <b>▲</b>    | X7R             | 0.22µF  | 10             | 20%       | .095    | .089   |
| 766313   | 06035G103ZAT2A <b>R</b> <b>▲</b>   | Y5V             | 0.01µF  | 50             | +80/-20%  | .02     | .019   |
| 766364   | 0603ZG104ZAT2A <b>R</b> <b>▲</b>   | Y5V             | 0.1µF   | 10             | +80/-20%  | .027    | .026   |
| 735656   | 0603YG104ZAT2A <b>R</b> <b>▲</b>   | Y5V             | 0.1µF   | 16             | +80/-20%  | .02     | .018   |
| 735509   | 06035G104ZAT2A <b>R</b> <b>▲</b>   | Y5V             | 0.1µF   | 50             | +80/-20%  | .046    | .044   |
| 766372   | 0603ZG105ZAT2A@1 <b>R</b> <b>▲</b> | Y5V             | 1µF     | 10             | +80/-20%  | .129    | .119   |

▲ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

R RoHS compliant product

⊕ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.

## Size 0805 Multilayer Ceramic Chips

Prepackaged: please order  
in increments of 5

| Part No. | Product No.                      | Temp.<br>Coeff. | Value  | Voltage<br>(V) | Tolerance | Pricing |        |
|----------|----------------------------------|-----------------|--------|----------------|-----------|---------|--------|
|          |                                  |                 |        |                |           | 5       | 50     |
| 766701   | 08055A1R0CAT2A <b>R</b> <b>▲</b> | NPO             | 1pF    | 50             | .25pF     | \$.038  | \$.036 |
| 766735   | 08055A2R2CAT2A <b>R</b> <b>▲</b> | NPO             | 2.2pF  | 50             | .25pF     | .038    | .036   |
| 766751   | 08055A3R3CAT2A <b>R</b> <b>▲</b> | NPO             | 3.3pF  | 50             | .25pF     | .038    | .036   |
| 766516   | 08051A3R3DAT2A <b>R</b> <b>▲</b> | NPO             | 3.3pF  | 100            | .5pF      | .036    | .035   |
| 736114   | 08055A6R8CAT2A <b>R</b> <b>▲</b> | NPO             | 6.8pF  | 50             | .25pF     | .11     | .099   |
| 766760   | 08055A6R8DAT2A <b>R</b> <b>▲</b> | NPO             | 6.8pF  | 50             | .5pF      | .036    | .035   |
| 766541   | 08051A6R8CAT2A <b>R</b> <b>▲</b> | NPO             | 6.8pF  | 100            | .25pF     | .021    | .02    |
| 766786   | 08055A8R2DAT2A <b>R</b> <b>▲</b> | NPO             | 8.2pF  | 50             | .5pF      | .036    | .035   |
| 766655   | 08055A100DAT2A <b>R</b> <b>▲</b> | NPO             | 10pF   | 50             | .5pF      | .022    | .021   |
| 735867   | 08055A100JAT2A <b>R</b> <b>▲</b> | NPO             | 10pF   | 50             | 5%        | .022    | .021   |
| 735875   | 08055A100KAT2A <b>R</b> <b>▲</b> | NPO             | 10pF   | 50             | 10%       | .022    | .021   |
| 766381   | 08051A100KAT2A <b>R</b> <b>▲</b> | NPO             | 10pF   | 100            | 10%       | .022    | .021   |
| 766671   | 08055A120JAT2A <b>R</b> <b>▲</b> | NPO             | 12pF   | 50             | 5%        | .022    | .021   |
| 766399   | 08051A120JAT2A <b>R</b> <b>▲</b> | NPO             | 12pF   | 100            | 5%        | .022    | .02    |
| 735939   | 08055A150JAT2A <b>R</b> <b>▲</b> | NPO             | 15pF   | 50             | 5%        | .037    | .035   |
| 735955   | 08055A180JAT2A <b>R</b> <b>▲</b> | NPO             | 18pF   | 50             | 5%        | .022    | .021   |
| 766428   | 08051A180JAT2A <b>▲</b>          | NPO             | 18pF   | 100            | 5%        | .022    | .021   |
| 735963   | 08055A200JAT2A <b>R</b> <b>▲</b> | NPO             | 20pF   | 50             | 5%        | .038    | .037   |
| 735971   | 08055A220JAT2A <b>R</b> <b>▲</b> | NPO             | 22pF   | 50             | 5%        | .10     | .09    |
| 735980   | 08055A220KAT2A <b>R</b> <b>▲</b> | NPO             | 22pF   | 50             | 10%       | .033    | .031   |
| 735699   | 08051A220JAT2A <b>R</b> <b>▲</b> | NPO             | 22pF   | 100            | 5%        | .019    | .018   |
| 766436   | 08051A220KAT2A <b>R</b> <b>▲</b> | NPO             | 22pF   | 100            | 10%       | .022    | .021   |
| 736018   | 08055A270JAT2A <b>R</b> <b>▲</b> | NPO             | 27pF   | 50             | 5%        | .022    | .021   |
| 766727   | 08055A270KAT2A <b>R</b> <b>▲</b> | NPO             | 27pF   | 50             | 10%       | .034    | .033   |
| 766452   | 08051A270JAT2A <b>R</b> <b>▲</b> | NPO             | 27pF   | 100            | 5%        | .037    | .035   |
| 766461   | 08051A270KAT2A <b>R</b> <b>▲</b> | NPO             | 27pF   | 100            | 10%       | .034    | .033   |
| 736026   | 08055A300JAT2A <b>R</b> <b>▲</b> | NPO             | 30pF   | 50             | 5%        | .038    | .037   |
| 736034   | 08055A330JAT2A <b>R</b> <b>▲</b> | NPO             | 33pF   | 50             | 5%        | .022    | .021   |
| 766743   | 08055A330KAT2A <b>R</b> <b>▲</b> | NPO             | 33pF   | 50             | 10%       | .034    | .033   |
| 735701   | 08051A330JAT2A <b>R</b> <b>▲</b> | NPO             | 33pF   | 100            | 5%        | .038    | .036   |
| 735710   | 08051A330KAT2A <b>R</b> <b>▲</b> | NPO             | 33pF   | 100            | 10%       | .022    | .021   |
| 736042   | 08055A390JAT2A <b>R</b> <b>▲</b> | NPO             | 39pF   | 50             | 5%        | .037    | .035   |
| 766495   | 08051A390JAT2A <b>R</b> <b>▲</b> | NPO             | 39pF   | 100            | 5%        | .022    | .021   |
| 736069   | 08055A470JAT2A <b>R</b> <b>▲</b> | NPO             | 47pF   | 50             | 5%        | .037    | .035   |
| 736077   | 08055A470KAT2A <b>▲</b>          | NPO             | 47pF   | 50             | 10%       | .022    | .021   |
| 766524   | 08051A470KAT2A <b>R</b> <b>▲</b> | NPO             | 47pF   | 100            | 10%       | .022    | .021   |
| 736085   | 08055A560JAT2A <b>R</b> <b>▲</b> | NPO             | 56pF   | 50             | 5%        | .022    | .021   |
| 735736   | 08051A560JAT2A <b>R</b> <b>▲</b> | NPO             | 56pF   | 100            | 5%        | .022    | .021   |
| 736106   | 08055A680JAT2A <b>R</b> <b>▲</b> | NPO             | 68pF   | 50             | 5%        | .022    | .021   |
| 766778   | 08055A820KAT2A <b>R</b> <b>▲</b> | NPO             | 82pF   | 50             | 10%       | .034    | .033   |
| 766663   | 08055A101JAT4A <b>R</b> <b>▲</b> | NPO             | 100pF  | 50             | 5%        | .022    | .021   |
| 735883   | 08055A101KAT2A <b>R</b> <b>▲</b> | NPO             | 100pF  | 50             | 10%       | .033    | .029   |
| 735681   | 08051A101KAT2A <b>R</b> <b>▲</b> | NPO             | 100pF  | 100            | 10%       | .033    | .032   |
| 735912   | 08055A121JAT2A <b>R</b> <b>▲</b> | NPO             | 120pF  | 50             | 5%        | .022    | .021   |
| 735947   | 08055A151JAT2A <b>R</b> <b>▲</b> | NPO             | 150pF  | 50             | 5%        | .022    | .021   |
| 766401   | 08051A151JAT2A <b>R</b> <b>▲</b> | NPO             | 150pF  | 100            | 5%        | .022    | .021   |
| 766410   | 08051A151KAT2A <b>R</b> <b>▲</b> | NPO             | 150pF  | 100            | 10%       | .022    | .021   |
| 766698   | 08055A181JAT2A <b>R</b> <b>▲</b> | NPO             | 180pF  | 50             | 5%        | .037    | .036   |
| 735998   | 08055A221JAT2A <b>R</b> <b>▲</b> | NPO             | 220pF  | 50             | 5%        | .037    | .035   |
| 736000   | 08055A221KAT2A <b>R</b> <b>▲</b> | NPO             | 220pF  | 50             | 10%       | .034    | .033   |
| 766719   | 08055A221JAT4A <b>R</b> <b>▲</b> | NPO             | 220pF  | 50             | 5%        | .037    | .035   |
| 766444   | 08051A221KAT2A <b>R</b> <b>▲</b> | NPO             | 220pF  | 100            | 10%       | .037    | .035   |
| 766479   | 08051A271JAT2A <b>R</b> <b>▲</b> | NPO             | 270pF  | 100            | 5%        | .037    | .036   |
| 735728   | 08051A331JAT2A <b>R</b> <b>▲</b> | NPO             | 330pF  | 100            | 5%        | .037    | .035   |
| 766487   | 08051A331KAT2A <b>R</b> <b>▲</b> | NPO             | 330pF  | 100            | 10%       | .037    | .036   |
| 736051   | 08055A391JAT2A <b>R</b> <b>▲</b> | NPO             | 390pF  | 50             | 5%        | .037    | .036   |
| 766508   | 08051A391JAT2A <b>R</b> <b>▲</b> | NPO             | 390pF  | 100            | 5%        | .037    | .036   |
| 766532   | 08051A471KAT2A <b>R</b> <b>▲</b> | NPO             | 470pF  | 100            | 10%       | .037    | .036   |
| 736093   | 08055A561JAT2A <b>R</b> <b>▲</b> | NPO             | 560pF  | 50             | 5%        | .042    | .04    |
| 736122   | 08055A821JAT2A <b>R</b> <b>▲</b> | NPO             | 820pF  | 50             | 5%        | .042    | .04    |
| 735891   | 08055A102FAT2A <b>R</b> <b>▲</b> | NPO             | 1000pF | 50             | 1%        | .162    | .16    |
| 735904   | 08055A102KAT2A <b>R</b> <b>▲</b> | NPO             | 1000pF | 50             | 10%       | .052    | .05    |
| 735921   | 08055A122JAT2A <b>R</b> <b>▲</b> | NPO             | 1200pF | 50             | 5%        | .072    | .071   |
| 766680   | 08055A152JAT2A <b>R</b> <b>▲</b> | NPO             | 1500pF | 50             | 5%        | .055    | .053   |
| 735795   | 08053A222JAT2A <b>R</b> <b>▲</b> | NPO             | 2200pF | 25             | 5%        | .041    | .04    |
| 735808   | 08053A272JAT2A <b>R</b> <b>▲</b> | NPO             | 2700pF | 25             | 5%        | .041    | .04    |



## Surface Mount Ceramic Capacitors (Continued)

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### Size 0805 Multilayer Ceramic Chips (Cont'd)

Prepackaged: please order  
in increments of 5

| Part No. | Product No.      | Temp. Coeff. | Voltage Value (V) | Tolerance | Pricing |        |
|----------|------------------|--------------|-------------------|-----------|---------|--------|
|          |                  |              |                   |           | 5       | 50     |
| 736430   | 0805ZD475KAT2A ♣ | X5R          | 4.7µF             | 10%       | \$ .15  | \$ .13 |
| 736368   | 08056D106MAT2A ♣ | X5R          | 10µF              | 6.3       | .43     | .41    |
| 736131   | 08055C101KAT2A ♣ | X7R          | 100pF             | 50        | .037    | .035   |
| 766794   | 08055C101MAT2A ♣ | X7R          | 100pF             | 50        | .034    | .033   |
| 736229   | 08055C221KAT2A ♣ | X7R          | 220pF             | 50        | .038    | .037   |
| 736261   | 08055C271KAT2A ♣ | X7R          | 270pF             | 50        | .038    | .037   |
| 736296   | 08055C471JAT2A ♣ | X7R          | 470pF             | 50        | .052    | .051   |
| 736309   | 08055C471KAT2A ♣ | X7R          | 470pF             | 50        | .021    | .02    |
| 766591   | 08051C471KAT2A ♣ | X7R          | 470pF             | 100       | .037    | .035   |
| 736333   | 08055C681KAT2A ♣ | X7R          | 680pF             | 50        | .038    | .037   |
| 766874   | 0805YC102KAT2A ♣ | X7R          | 1000pF            | 16        | .021    | .02    |
| 736149   | 08055C102JAT2A ♣ | X7R          | 1000pF            | 50        | .051    | .049   |
| 766807   | 08055C102KAT4A ♣ | X7R          | 1000pF            | 50        | .021    | .016   |
| 736157   | 08055C102MAT2A ♣ | X7R          | 1000pF            | 50        | .021    | .02    |
| 735744   | 08051C102KAT2A ♣ | X7R          | 1000pF            | 100       | .037    | .035   |
| 766575   | 08051C152KAT2A ♣ | X7R          | 1500pF            | 100       | .037    | .035   |
| 736237   | 08055C222JAT2A ♣ | X7R          | 2200pF            | 50        | .052    | .051   |
| 736245   | 08055C222KAT2A ♣ | X7R          | 2200pF            | 50        | .027    | .025   |
| 766823   | 08055C222MAT2A ♣ | X7R          | 2200pF            | 50        | .034    | .033   |
| 735761   | 08051C222JAT2A ♣ | X7R          | 2200pF            | 100       | .024    | .023   |
| 735787   | 08052C222KAT2A ♣ | X7R          | 2200pF            | 200       | .062    | .061   |
| 736270   | 08055C332KAT2A ♣ | X7R          | 3300pF            | 50        | .037    | .035   |
| 766840   | 08055C392KAT2A ♣ | X7R          | 3900pF            | 50        | .021    | .02    |
| 736317   | 08055C472JAT2A ♣ | X7R          | 4700pF            | 50        | .052    | .051   |
| 735779   | 08051C472KAT2A ♣ | X7R          | 4700pF            | 100       | .037    | .035   |
| 736341   | 08055C682KAT2A ♣ | X7R          | 6800pF            | 50        | .021    | .02    |
| 766882   | 0805YC103KAT2A ♣ | X7R          | .01µF             | 16        | .027    | .025   |
| 766612   | 08053C103JAT2A ♣ | X7R          | .01µF             | 25        | .024    | .023   |
| 735816   | 08053C103KAT2A ♣ | X7R          | .01µF             | 25        | .027    | .025   |
| 736165   | 08055C103JAT2A ♣ | X7R          | .01µF             | 50        | .023    | .021   |
| 736173   | 08055C103KAT4A ♣ | X7R          | .01µF             | 50        | .017    | .015   |
| 736181   | 08055C103MAT2A ♣ | X7R          | .01µF             | 50        | .033    | .031   |
| 735752   | 08051C103JAT2A ♣ | X7R          | .01µF             | 100       | .025    | .023   |
| 766559   | 08051C103MAT2A ♣ | X7R          | .01µF             | 100       | .034    | .033   |
| 766815   | 08055C153KAT2A ♣ | X7R          | .015µF            | 50        | .024    | .023   |
| 736384   | 0805YC223KAT2A ♣ | X7R          | .022µF            | 16        | .038    | .037   |
| 736253   | 08055C223JAT2A ♣ | X7R          | .022µF            | 50        | .058    | .055   |
| 766831   | 08055C223KAT4A ♣ | X7R          | .022µF            | 50        | .031    | .029   |
| 736288   | 08055C333JAT2A ♣ | X7R          | .033µF            | 50        | .058    | .057   |
| 766583   | 08051C333KAT2A ♣ | X7R          | .033µF            | 100       | .058    | .057   |
| 736325   | 08055C473JAT2A ♣ | X7R          | .047µF            | 50        | .058    | .057   |
| 766604   | 08051C473KAT2A ♣ | X7R          | .047µF            | 100       | .058    | .057   |
| 736376   | 0805YC104KAT2A ♣ | X7R          | .1µF              | 16        | .036    | .035   |
| 766891   | 0805YC104MAT2A ♣ | X7R          | .1µF              | 16        | .036    | .035   |
| 735824   | 08053C104JAT2A ♣ | X7R          | .1µF              | 25        | .058    | .056   |
| 735832   | 08053C104KAT2A ♣ | X7R          | .1µF              | 25        | .036    | .034   |
| 735841   | 08053C104MAT2A ♣ | X7R          | .1µF              | 25        | .036    | .034   |
| 736190   | 08055C104JAT2A ♣ | X7R          | .1µF              | 50        | .12     | .11    |
| 736202   | 08055C104KAT4A ♣ | X7R          | .1µF              | 50        | .036    | .034   |
| 736211   | 08055C104MAT2A ♣ | X7R          | .1µF              | 50        | .089    | .079   |
| 766567   | 08051C104KAT2A ♣ | X7R          | .1µF              | 100       | .10     | .092   |
| 766621   | 08053C184KAT2A ♣ | X7R          | .18µF             | 25        | .057    | .056   |
| 766639   | 08053C224MAT2A ♣ | X7R          | .22µF             | 25        | .045    | .044   |
| 736392   | 0805YC474JAT2A ♣ | X7R          | .47µF             | 16        | .148    | .146   |
| 736421   | 0805ZC684KAT2A ♣ | X7R          | .68µF             | 10        | .208    | .207   |
| 736413   | 0805ZC105MAT2A ♣ | X7R          | 1µF               | 10        | .208    | .207   |
| 766647   | 08053G104ZAT2A ♣ | Y5V          | .1µF              | 25        | .046    | .044   |
| 766866   | 08055G104ZAT2A ♣ | Y5V          | .1µF              | 50        | .024    | .022   |
| 766903   | 0805YG105ZAT2A ♣ | Y5V          | 1µF               | 16        | .088    | .084   |
| 735859   | 08053G105ZAT2A ♣ | Y5V          | 1µF               | 25        | .075    | .072   |
| 766911   | 08052G225ZAT2A ♣ | Y5V          | 2.2µF             | 10        | .15     | .13    |
| 736405   | 0805YG225ZAT2A ♣ | Y5V          | 2.2µF             | 16        | .15     | .14    |
| 736448   | 0805ZG475ZAT2A ♣ | Y5V          | 4.7µF             | 10        | .15     | .14    |
| 766858   | 08055E103MAT2A ♣ | Z5U          | .01µF             | 50        | .036    | .034   |
| 736350   | 08055E104MAT2A ♣ | Z5U          | .1µF              | 50        | .036    | .034   |

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

 RoHS compliant product

 This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

[Details on page 1.](#)

### Size 1206 Multilayer Ceramic Chips

Prepackaged: please order  
in increments of 5

| Part No. | Product No.      | Temp. Coeff. | Voltage Value (V) | Tolerance | Pricing |         |
|----------|------------------|--------------|-------------------|-----------|---------|---------|
|          |                  |              |                   |           | 5       | 50      |
| 740121   | 12061A100KAT2A ♣ | NPO          | 10pF              | 100       | \$ .054 | \$ .052 |
| 740130   | 12061A150JAT2A ♣ | NPO          | 15pF              | 100       | .054    | .052    |
| 766938   | 12061A180JAT2A ♣ | NPO          | 18pF              | 100       | .054    | .052    |
| 740367   | 12065A220JAT2A ♣ | NPO          | 22pF              | 50        | .054    | .052    |
| 740164   | 12061A270JAT2A ♣ | NPO          | 27pF              | 100       | .054    | .052    |
| 740404   | 12065A330JAT2A ♣ | NPO          | 33pF              | 50        | .054    | .052    |
| 740181   | 12061A390JAT2A ♣ | NPO          | 39pF              | 100       | .054    | .052    |
| 740201   | 12061A680JAT2A ♣ | NPO          | 68pF              | 100       | .053    | .051    |
| 740332   | 12065A101JAT2A ♣ | NPO          | 100pF             | 50        | .059    | .057    |
| 740341   | 12065A151JAT2A ♣ | NPO          | 150pF             | 50        | .082    | .081    |
| 740148   | 12061A151JAT2A ♣ | NPO          | 150pF             | 100       | .053    | .051    |
| 740375   | 12065A221JAT2A ♣ | NPO          | 220pF             | 50        | .053    | .051    |
| 740156   | 12061A221JAT2A ♣ | NPO          | 220pF             | 100       | .053    | .051    |
| 740172   | 12061A271JAT2A ♣ | NPO          | 270pF             | 100       | .053    | .051    |
| 740421   | 12065A471JAT2A ♣ | NPO          | 470pF             | 50        | .075    | .073    |
| 740199   | 12061A471JAT2A ♣ | NPO          | 470pF             | 100       | .075    | .073    |
| 740210   | 12061A821JAT2A ♣ | NPO          | 820pF             | 100       | .075    | .073    |
| 766920   | 12061A152KAT2A ♣ | NPO          | 1500pF            | 100       | .05     | .049    |
| 740359   | 12065A182JAT2A ♣ | NPO          | 1800pF            | 50        | .081    | .079    |
| 740383   | 12065A222KAT2A ♣ | NPO          | 2200pF            | 50        | .05     | .049    |
| 766946   | 12061A222KAT2A ♣ | NPO          | 2200pF            | 100       | .06     | .059    |
| 740391   | 12065A272JAT2A ♣ | NPO          | 2700pF            | 50        | .12     | .11     |
| 740412   | 12065A332JAT2A ♣ | NPO          | 3300pF            | 50        | .085    | .083    |
| 740631   | 12066D106KAT2A ♣ | X5R          | 10µF              | 6.3       | .21     | .19     |
| 740640   | 12066D226MAT2A ♣ | X5R          | 22µF              | 6.3       | .26     | .24     |
| 766997   | 12066G471KAT1A ♣ | X7R          | 470pF             | 2000      | .24     | .22     |
| 740439   | 12065C102KAT2A ♣ | X7R          | 1000pF            | 50        | .11     | .097    |
| 740228   | 12061C102JAT2A ♣ | X7R          | 1000pF            | 100       | .049    | .047    |
| 740261   | 12062C102KAT2A ♣ | X7R          | 1000pF            | 200       | .07     | .069    |
| 740501   | 12065C222KAT2A ♣ | X7R          | 2200pF            | 50        | .10     | .09     |
| 740252   | 12061C332KAT2A ♣ | X7R          | 3300pF            | 100       | .044    | .043    |
| 740535   | 12065C472KAT2A ♣ | X7R          | 4700pF            | 50        | .10     | .09     |
| 740578   | 12065C682JAT2A ♣ | X7R          | 6800pF            | 50        | .055    | .054    |
| 740447   | 12065C103JAT2A ♣ | X7R          | .01µF             | 50        | .049    | .048    |
| 740455   | 12065C103KAT2A ♣ | X7R          | .01µF             | 50        | .10     | .09     |
| 740236   | 12061C103JAT2A ♣ | X7R          | .01µF             | 100       | .049    | .047    |
| 740279   | 12062C103KAT2A ♣ | X7R          | .01µF             | 200       | .071    | .069    |
| 740244   | 12061C153KAT2A ♣ | X7R          | .015µF            | 100       | .053    | .052    |
| 740519   | 12065C223KAT2A ♣ | X7R          | .022µF            | 50        | .051    | .049    |
| 740287   | 12062C223KAT2A ♣ | X7R          | .022µF            | 200       | .075    | .074    |
| 740527   | 12065C333KAT2A ♣ | X7R          | .033µF            | 50        | .038    | .036    |
| 740543   | 12065C473JAT2A ♣ | X7R          | .047µF            | 50        | .049    | .048    |
| 740551   | 12065C473KAT2A ♣ | X7R          | .047µF            | 50        | .044    | .042    |
| 766989   | 12065C473MAT2A ♣ | X7R          | .047µF            | 50        | .044    | .042    |
| 740586   | 12065C683KAT2A ♣ | X7R          | .068µF            | 50        | .044    | .042    |
| 740295   | 12063C104KAT2A ♣ | X7R          | .1µF              | 25        | .054    | .052    |
| 740463   | 12065C104JAT2A ♣ | X7R          | .1µF              | 50        | .057    | .055    |
| 740471   | 12065C104KAT4A ♣ | X7R          | .1µF              | 50        | .053    | .051    |
| 740480   | 12065C104MAT2A ♣ | X7R          | .1µF              | 50        | .12     | .11     |
| 766954   | 12061C104MAT2A ♣ | X7R          | .1µF              | 100       | .062    | .061    |
| 766962   | 12065C154KAT2A ♣ | X7R          | .15µF             | 50        | .09     | .08     |
| 740308   | 12063C224KAT2A ♣ | X7R          | .22µF             | 25        | .089    | .087    |
| 740316   | 12063C334KAT2A ♣ | X7R          | .33µF             | 25        | .179    | .175    |
| 766971   | 12065C334MAT2A ♣ | X7R          | .33µF             | 50        | .09     | .08     |
| 740682   | 1206YC474KAT2A ♣ | X7R          | .47µF             | 16        | .17     | .16     |
| 740560   | 12065C474KAT2A ♣ | X7R          | .47µF             | 50        | .105    | .103    |
| 740691   | 1206YC684KAT2A ♣ | X7R          | .68µF             | 16        | .12     | .11     |
| 740658   | 1206YC105KAT2A ♣ | X7R          | 1µF               | 16        | .12     | .11     |
| 740666   | 1206YC105ZAT2A ♣ | X7R          | 1µF               | 16        | .12     | .11     |
| 740674   | 1206YC105MAT2A ♣ | X7R          | 1µF               | 16        | .145    | .143    |
| 740720   | 12062C225KAT2A ♣ | X7R          | 2.2µF             | 10        | .18     | .16     |
| 740703   | 1206YG105ZAT2A ♣ | Y5V          | 1µF               | 16        | .118    | .112    |
| 740324   | 12063G105ZAT2A ♣ | Y5V          | 1µF               | 25        | .14     | .12     |
| 740711   | 1206YG225ZAT2A ♣ | Y5V          | 2.2µF             | 16        | .14     | .12     |
| 740738   | 1206ZG106ZAT2A ♣ | Y5V          | 10µF              | 10        | .16     | .14     |

Passives





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## Surface Mount Ceramic Capacitors (Continued)

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## Size 1206 Multilayer Ceramic Chips (Continued)

\* Prepackaged: please order  
in increments of 5

| Part No. | Product No.    | Temp.<br>Coeff. | Value | Voltage<br>(V) | Tolerance | Pricing |        |        |
|----------|----------------|-----------------|-------|----------------|-----------|---------|--------|--------|
|          |                |                 |       |                |           | 1       | 5      | 50     |
| 740594   | 12065E104MAT2A | Z5U             | .1µF  | 50             | 20%       | *       | \$.024 | \$.022 |
| 740607   | 12065E104ZAT2A | Z5U             | .1µF  | 50             | +80/-20%  | *       | .04    | .038   |
| 740615   | 12065E224MAT2A | Z5U             | .22µF | 50             | 20%       | *       | .062   | .06    |
| 740623   | 12065E334MAT2A | Z5U             | .33µF | 50             | 20%       | *       | .067   | .065   |

## Size 1210 Multilayer Ceramic Chips

\* Prepackaged: please order in increments of 5

| Part No. | Product No.    | Temp.<br>Coeff. | Value | Voltage<br>(V) | Tolerance | Pricing |        |       |
|----------|----------------|-----------------|-------|----------------|-----------|---------|--------|-------|
|          |                |                 |       |                |           | 1       | 5      | 50    |
| 740818   | 12107C103KAT2A | X7R             | .01µF | 500            | 10%       | \$1.19  | \$1.05 | \$.99 |
| 740771   | 12101C224KAT2A | X7R             | .22µF | 100            | 10%       | *       | .124   | .119  |
| 740789   | 12101C474KAT2A | X7R             | .47µF | 100            | 10%       | *       | .163   | .159  |
| 740797   | 12105C105KAT2A | X7R             | 1µF   | 50             | 10%       | *       | .46    | .44   |
| 740826   | 1210YC475KAT2A | X7R             | 4.7µF | 16             | 10%       | *       | .45    | .43   |
| 740834   | 1210YG106ZAT2A | Y5V             | 10µF  | 16             | +80/-20%  | .79     | .75    | .71   |
| 740842   | 1210ZG226ZAT2A | Y5V             | 22µF  | 10             | +80/-20%  | .95     | .89    | .85   |
| 740800   | 12105E474MAT2A | Z5U             | .47µF | 50             | 20%       | *       | .19    | .18   |

## Size 1812 Multilayer Ceramic Chips

\* Prepackaged: please order  
in increments of 5

| Part No. | Product No.    | Temp.<br>Coeff. | Value | Voltage<br>(V) | Tolerance | Pricing |       |       |
|----------|----------------|-----------------|-------|----------------|-----------|---------|-------|-------|
|          |                |                 |       |                |           | 1       | 5     | 50    |
| 742881   | 18125A103JAT2A | NPO             | .01µF | 50             | 5%        | \$.59   | \$.55 | \$.49 |
| 742830   | 18121C104KAT2A | X7R             | .1µF  | 100            | 10%       | *       | .355  | .35   |
| 742899   | 18125C224KAT2A | X7R             | .22µF | 50             | 10%       | *       | .195  | .19   |
| 742901   | 18125C334KAT2A | X7R             | .33µF | 50             | 10%       | *       | .285  | .28   |
| 742910   | 18125C474KAT2A | X7R             | .47µF | 50             | 10%       | *       | .30   | .29   |
| 742856   | 18121C474KAT2A | X7R             | .47µF | 100            | 10%       | .65     | .59   | .55   |
| 742848   | 18121C105KAT2A | X7R             | 1µF   | 100            | 10%       | .99     | .99   | .99   |
| 742944   | 18125E474MAT2A | Z5U             | .47µF | 50             | 20%       | *       | .44   | .43   |
| 742928   | 18125E105MAT2A | Z5U             | 1µF   | 50             | 20%       | *       | .46   | .45   |
| 742936   | 18125E105ZAT2A | Z5U             | 1µF   | 50             | +80/-20%  | *       | .44   | .43   |

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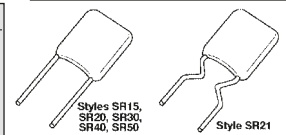
NEW

## Radial Ceramic Capacitors

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- Conformally coated radial leaded MLC
- Temperature coefficients: NPO, X7R, Z5U
- Case material: epoxy
- Lead material: 24AWG solid copper plated

| AVX Style            | SR15 (A) Case    | SR21 (B) Case    | SR30 (C) Case    | SR40 (D) Case    | SR50 (E) Case    |
|----------------------|------------------|------------------|------------------|------------------|------------------|
| Width (W)            | 3.81mm (0.150")  | 5.08mm (0.200")  | 7.62mm (0.300")  | 10.16mm (0.400") | 12.70mm (0.500") |
| Height (H)           | 3.81mm (0.150")  | 5.08mm (0.200")  | 7.62mm (0.300")  | 10.16mm (0.400") | 12.70mm (0.500") |
| Thickness (T)        | 2.54mm (0.100")  | 3.175mm (0.125") | 3.81mm (0.150")  | 3.81mm (0.150")  | 5.08mm (0.200")  |
| Lead spacing (L.S.)  | 2.54mm (0.100")  | 5.08mm (0.200")  | 5.08mm (0.200")  | 5.08mm (0.200")  | 10.16mm (0.400") |
| Lead diameter (L.D.) | 0.508mm (0.020") | 0.508mm (0.020") | 0.508mm (0.020") | 0.508mm (0.020") | 0.635mm (0.025") |



## NPO Leaded Case

\* Prepackaged: please order in increments of 5

| Part No. | Product No.  | Temp. Coeff. | Value  | Volt. | Tolerance | Case | 1    | 5      | 50     |
|----------|--------------|--------------|--------|-------|-----------|------|------|--------|--------|
| 767754   | SR211A1R0DAA | NPO          | 1pF    | 100   | .5pF      | B    | *    | \$.167 | \$.163 |
| 767439   | SR151A5R0CAA | NPO          | 5pF    | 100   | .25pF     | A    | *    | .47    | .45    |
| 767535   | SR155A100JAA | NPO          | 10pF   | 50    | 5%        | A    | *    | .138   | .133   |
| 849194   | SR151A100JAA | NPO          | 10pF   | 100   | 5%        | A    | *    | .135   | .131   |
| 767324   | SR151A180JAA | NPO          | 18pF   | 100   | 5%        | A    | *    | .135   | .131   |
| 767341   | SR151A220JAA | NPO          | 22pF   | 100   | 5%        | A    | *    | .135   | .131   |
| 767359   | SR151A220JAR | NPO          | 22pF   | 100   | 5%        | A    | *    | .135   | .131   |
| 849274   | SR151A220KAA | NPO          | 22pF   | 100   | 10%       | A    | *    | .115   | .112   |
| 767447   | SR151A680JAA | NPO          | 68pF   | 100   | 5%        | A    | *    | .135   | .131   |
| 767455   | SR151A680KAA | NPO          | 68pF   | 100   | 10%       | A    | *    | .15    | .144   |
| 767800   | SR211A680JAA | NPO          | 68pF   | 100   | 5%        | B    | *    | .191   | .189   |
| 849215   | SR151A101JAA | NPO          | 100pF  | 100   | 5%        | A    | *    | .085   | .082   |
| 849240   | SR151A101KAA | NPO          | 100pF  | 100   | 10%       | A    | *    | .15    | .146   |
| 767746   | SR211A101JAA | NPO          | 100pF  | 100   | 5%        | B    | *    | .193   | .189   |
| 767332   | SR151A181JAA | NPO          | 180pF  | 100   | 5%        | A    | *    | .15    | .147   |
| 849303   | SR151A221JAA | NPO          | 220pF  | 100   | 5%        | A    | *    | .15    | .147   |
| 767367   | SR151A221KAA | NPO          | 220pF  | 100   | 10%       | A    | *    | .118   | .115   |
| 767771   | SR211A221JAA | NPO          | 220pF  | 100   | 5%        | B    | *    | .193   | .189   |
| 767797   | SR211A391JAA | NPO          | 390pF  | 100   | 5%        | B    | *    | .193   | .189   |
| 767412   | SR151A471JAA | NPO          | 470pF  | 100   | 5%        | A    | *    | .17    | .167   |
| 767421   | SR151A561JAA | NPO          | 560pF  | 100   | 5%        | A    | *    | .193   | .189   |
| 767885   | SR215A102KAA | NPO          | 1000pF | 50    | 10%       | B    | *    | .173   | .171   |
| 849451   | SR201A102JAA | NPO          | 1000pF | 100   | 5%        | B    | *    | .184   | .146   |
| 767607   | SR201A102JAR | NPO          | 1000pF | 100   | 5%        | B    | *    | .109   | .106   |
| 849661   | SR211A102JAA | NPO          | 1000pF | 100   | 5%        | B    | *    | .165   | .136   |
| 767789   | SR211A272JAA | NPO          | 2700pF | 100   | 5%        | B    | *    | .425   | .419   |
| 768124   | SR305A103JAA | NPO          | .01µF  | 50    | 5%        | C    | .87  | .76    | .72    |
| 768132   | SR305A103JAR | NPO          | .01µF  | 50    | 5%        | C    | .77  | .71    | .65    |
| 768061   | SR301A103JAA | NPO          | .01µF  | 100   | 5%        | C    | *    | .44    | .43    |
| 768079   | SR301A103JAR | NPO          | .01µF  | 100   | 5%        | C    | .77  | .71    | .65    |
| 768087   | SR301A153JAA | NPO          | .015µF | 100   | 5%        | C    | .86  | .84    | .84    |
| 768212   | SR405A473JAA | NPO          | .047µF | 50    | 5%        | D    | 1.95 | 1.91   | 1.89   |
| 768221   | SR405A683KAA | NPO          | .068µF | 50    | 10%       | D    | 1.95 | 1.91   | 1.89   |

## X7R Leaded Case

\* Prepackaged: please order in increments of 10

| Part No. | Product No.  | Temp. Coeff. | Value  | Volt. | Tolerance | Case | 1 | 10     | 100    |
|----------|--------------|--------------|--------|-------|-----------|------|---|--------|--------|
| 767498   | SR151C471KAA | X7R          | 470pF  | 100   | 10%       | A    | * | \$.141 | \$.136 |
| 767463   | SR151C102KAR | X7R          | 1000pF | 100   | 10%       | A    | * | .064   | .062   |

## X7R Leaded Case (Continued)

\* Prepackaged: please order in increments of 5

| Part No. | Product No.  | Temp. Coeff. | Value  | Volt. | Tolerance | Case | 1    | 5      | 50     |
|----------|--------------|--------------|--------|-------|-----------|------|------|--------|--------|
| 767471   | SR151C102MAA | X7R          | 1000pF | 100   | 20%       | A    | *    | \$.098 | \$.095 |
| 767527   | SR152C102KAA | X7R          | 1000pF | 200   | 10%       | A    | *    | .215   | .211   |
| 767818   | SR211C102KAA | X7R          | 1000pF | 100   | 10%       | 2    | *    | .087   | .083   |
| 767551   | SR155C222KAA | X7R          | 2200pF | 50    | 10%       | A    | *    | .108   | .106   |
| 767480   | SR151C332KAA | X7R          | 3300pF | 100   | 10%       | A    | *    | .108   | .106   |
| 767842   | SR211C472KAA | X7R          | 4700pF | 100   | 10%       | B    | *    | .192   | .172   |
| 849362   | SR155C103KAA | X7R          | .01µF  | 50    | 10%       | A    | *    | .108   | .105   |
| 767543   | SR155C103KAR | X7R          | .01µF  | 50    | 10%       | A    | *    | .071   | .069   |
| 849830   | SR215C103KAA | X7R          | .01µF  | 50    | 10%       | B    | *    | .099   | .095   |
| 767826   | SR211C103KAR | X7R          | .01µF  | 100   | 10%       | B    | *    | .116   | .098   |
| 768028   | SR217C103MAA | X7R          | .01µF  | 500   | 20%       | B    | *    | .305   | .299   |
| 767560   | SR155C223KAA | X7R          | .022µF | 50    | 10%       | A    | *    | .108   | .106   |
| 767623   | SR201C223KAA | X7R          | .022µF | 100   | 10%       | B    | *    | .15    | .147   |
| 767631   | SR201C333KAA | X7R          | .033µF | 100   | 10%       | B    | *    | .15    | .147   |
| 767674   | SR205C473KAA | X7R          | .047µF | 50    | 10%       | B    | *    | .163   | .159   |
| 849522   | SR205C104KAA | X7R          | .1µF   | 50    | 10%       | B    | *    | .126   | .107   |
| 767658   | SR205C104KAR | X7R          | .1µF   | 50    | 10%       | B    | *    | .173   | .125   |
| 767666   | SR205C104KAT | X7R          | .1µF   | 50    | 10%       | B    | *    | .079   | .076   |
| 767893   | SR215C104KAR | X7R          | .1µF   | 50    | 10%       | B    | *    | .146   | .116   |
| 767906   | SR215C104KAT | X7R          | .1µF   | 50    | 10%       | B    | *    | .136   | .116   |
| 767914   | SR215C104MAA | X7R          | .1µF   | 50    | 20%       | B    | *    | .15    | .147   |
| 767922   | SR215C104MAR | X7R          | .1µF   | 50    | 20%       | B    | *    | .225   | .213   |
| 849477   | SR201C104KAA | X7R          | .1µF   | 100   | 10%       | B    | *    | .104   | .101   |
| 767615   | SR201C104KAR | X7R          | .1µF   | 100   | 10%       | B    | *    | .174   | .147   |
| 767834   | SR211C104KAR | X7R          | .1µF   | 100   | 10%       | B    | *    | .155   | .124   |
| 767931   | SR215C154KAA | X7R          | .15µF  | 50    | 10%       | B    | *    | .305   | .299   |
| 849899   | SR215C224KAA | X7R          | .22µF  | 50    | 10%       | B    | *    | .29    | .27    |
| 767949   | SR215C224KAR | X7R          | .22µF  | 50    | 10%       | B    | *    | .195   | .189   |
| 768095   | SR301C224KAA | X7R          | .22µF  | 100   | 10%       | C    | .65  | .63    | .61    |
| 768167   | SR305C334KAA | X7R          | .33µF  | 50    | 10%       | C    | .62  | .62    | .61    |
| 768175   | SR305C474KAR | X7R          | .47µF  | 50    | 10%       | C    | .95  | .73    | .521   |
| 850072   | SR305C105KAA | X7R          | 1µF    | 50    | 10%       | C    | .69  | .65    | .64    |
| 768141   | SR305C105KAR | X7R          | 1µF    | 50    | 10%       | C    | .61  | .59    | .57    |
| 768159   | SR305C105MAA | X7R          | 1µF    | 50    | 20%       | C    | 1.09 | 1.07   | 1.05   |
| 850110   | SR401C105KAA | X7R          | 1µF    | 100   | 10%       | D    | 1.45 | 1.41   | 1.38   |
| 768204   | SR401C105KAR | X7R          | 1µF    | 100   | 10%       | D    | 1.45 | 1.41   | 1.38   |
| 768255   | SR505C105KAA | X7R          | 1µF    | 50    | 10%       | E    | 4.29 | 4.25   | 4.19   |
| 768239   | SR405C225KAA | X7R          | 2.2µF  | 50    | 10%       | D    | 3.99 | 3.87   | 3.75   |

\* This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product

This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.



## Resin Molded Chip Tantalum Electrolytic Capacitors (±10%)

Case Size (Dimensions in mm)



| EIA Case Code | L ±0.2 | W ±0.2 | H ±0.2 | P ±0.3 | a ±0.2 | h(min) |
|---------------|--------|--------|--------|--------|--------|--------|
| A (3216-18)   | 3.2    | 1.6    | 1.7    | 0.8    | 1.2    | 0.7    |
| B (3528-21)   | 3.5    | 2.8    | 1.9    | 0.8    | 2.2    | 0.7    |
| C (6032-28)   | 6.0    | 3.2    | 2.6    | 1.3    | 2.2    | 1.0    |
| D (7343-31)   | 7.3    | 4.3    | 2.9    | 1.3    | 2.4    | 1.0    |
| E (7343-43)   | 7.3    | 4.3    | 4.1    | 1.3    | 2.4    | 1.0    |









| Jameco ValuePro |             | 6.3V SMT  |        | Pricing per each* |         |         |  |
|-----------------|-------------|-----------|--------|-------------------|---------|---------|--|
| Part No.        | Capacitance | Case Size | 10     | 100               | 500     | 1000    |  |
| 597311          | 10µF        | A         | \$ .38 | \$ .307           | \$ .292 | \$ .278 |  |
| 545027          | 10µF        | A         | .275   | .243              | .194    | .119    |  |

| Jameco   |             | 10V SMT |         | Pricing per each* |         |         |  |
|----------|-------------|---------|---------|-------------------|---------|---------|--|
| ValuePro |             | Case    |         |                   |         |         |  |
| Part No. | Capacitance | Size    | 10      | 100               | 500     | 1000    |  |
| 545078   | 4.7µF       | A       | \$ .134 | \$ .129           | \$ .122 | \$ .092 |  |
| 597329   | 4.7µF       | A       | .38     | .307              | .292    | .278    |  |
| 545086   | 6.8µF       | A       | .266    | .232              | .219    | .182    |  |
| 597302   | 10µF        | A       | .323    | .288              | .255    | .213    |  |
| 545035   | 10µF        | A       | .172    | .153              | .138    | .103    |  |
| 545115   | 15µF        | A       | .326    | .307              | .30     | .274    |  |
| 545203   | 47µF        | B       | .444    | .408              | .367    | .365    |  |
| 545297   | 100µF       | C       | .73     | .64               | .55     | .538    |  |
| 545422   | 100µF       | D       | 2.14    | 1.93              | 1.15    | 1.12    |  |
| 545473   | 150µF       | D       | 1.89    | 1.70              | 1.03    | 1.00    |  |
| 597441   | 220µF       | D       | 4.05    | 3.39              | 2.72    | 2.59    |  |
| 545369   | 220µF       | D       | 1.84    | 1.63              | .87     | .85     |  |

| JAMECO   |             | 16V SMT |        | Pricing per each * |         |         |  |
|----------|-------------|---------|--------|--------------------|---------|---------|--|
| ValuePro |             | Case    |        |                    |         |         |  |
| Part No. | Capacitance | Size    | 10     | 100                | 500     | 1000    |  |
| 544981   | 1µF         | A       | \$ .19 | \$ .169            | \$ .154 | \$ .147 |  |
| 545043   | 2.2µF       | A       | .247   | .216               | .185    | .154    |  |
| 545051   | 3.3µF       | A       | .134   | .129               | .122    | .092    |  |
| 545174   | 4.7µF       | B       | .272   | .242               | .221    | .213    |  |
| 597337   | 10µF        | B       | .56    | .504               | .405    | .365    |  |
| 545140   | 10µF        | B       | .168   | .161               | .152    | .145    |  |
| 545211   | 10µF        | C       | .326   | .289               | .138    | .136    |  |
| 597345   | 22µF        | B       | .475   | .384               | .365    | .347    |  |
| 545166   | 22µF        | B       | .208   | .207               | .206    | .205    |  |
| 545300   | 22µF        | C       | .60    | .532               | .461    | .415    |  |
| 597353   | 47µF        | C       | .99    | .94                | .75     | .73     |  |
| 545271   | 47µF        | C       | .60    | .513               | .295    | .287    |  |
| 597417   | 47µF        | D       | 1.52   | 1.43               | .88     | .86     |  |
| 545393   | 47µF        | D       | .57    | .502               | .29     | .258    |  |
| 597425   | 100µF       | E       | 3.91   | 3.03               | 2.44    | 2.32    |  |
| 545449   | 100µF       | D       | 1.64   | 1.54               | 1.24    | 1.20    |  |

| JAMECO   |   | 50V SMT |         | Pricing per each* |         |         |  |
|----------|---|---------|---------|-------------------|---------|---------|--|
| ValuePro |   |         | Case    |                   |         |         |  |
| Part No. | Capacitance   | Size    | 10      | 100               | 500     | 1000    |  |
| 544972   |  0.1µF | A       | \$ .516 | \$ .456           | \$ .365 | \$ .304 |  |
| 545414   |  6.8µF | D       | 1.80    | 1.63              | 1.55    | 1.51    |  |

| JAMECO   |             | 20V SMT |         | Pricing per each* |         |         |  |
|----------|-------------|---------|---------|-------------------|---------|---------|--|
| ValuePro |             |         | Case    |                   |         |         |  |
| Part No. | Capacitance | Size    | 10      | 100               | 500     | 1000    |  |
| 544999   | 0.1µF       | A       | \$ .237 | \$ .208           | \$ .194 | \$ .173 |  |
| 545060   | 3.3µF       | A       | .285    | .248              | .231    | .14     |  |
| 545220   | 10µF        | C       | .316    | .28               | .148    | .141    |  |
| 597409   | 33µF        | D       | 1.52    | 1.43              | .88     | .86     |  |
| 545377   | 33µF        | D       | .516    | .456              | .332    | .299    |  |
| 545553   | 68µF        | D       | 4.66    | 3.21              | 1.98    | 1.88    |  |

| JAMECO<br>ValuePro |  | 25V SMT   |        | Pricing per each* |        |        |  |
|--------------------|--|-----------|--------|-------------------|--------|--------|--|
| Part No.           | Capacitance  | Case Size | 10     | 100               | 500    | 1000   |  |
| 545001             |  1µF  | A         | \$.247 | \$.216            | \$.203 | \$.186 |  |
| 545289             |  10µF | C         | .60    | .532              | .316   | .284   |  |
| 597396             |  22µF | D         | 1.52   | 1.43              | .88    | .86    |  |
| 545342             |  22µF | D         | .57    | .502              | .26    | .258   |  |
| 545406             |  47µF | D         | 2.37   | 2.07              | 1.15   | 1.12   |  |
| 545545             |  33µF | D         | 3.35   | 2.41              | 1.94   | 1.85   |  |

| JAMICO<br>ValuePro | 35V SMT     |           | Pricing per each* |         |         |         |
|--------------------|-------------|-----------|-------------------|---------|---------|---------|
| Part No.           | Capacitance | Case Size | 10                | 100     | 500     | 1000    |
| 544964             | 0.1µF       | A         | \$ .314           | \$ .302 | \$ .288 | \$ .216 |
| 597290             | 1µF         | A         | .344              | .304    | .243    | .20     |
| 545131             | 1µF         | B         | .272              | .242    | .221    | .203    |
| 545158             | 2.2µF       | B         | .405              | .39     | .382    | .374    |
| 545254             | 2.2µF       | C         | .378              | .334    | .202    | .182    |
| 545262             | 3.3µF       | C         | .313              | .284    | .266    | .20     |
| 545385             | 4.7µF       | D         | .541              | .491    | .472    | .449    |
| 545238             | 10µF        | C         | .469              | .422    | .38     | .342    |
| 545326             | 10µF        | D         | .60               | .532    | .30     | .298    |
| 597388             | 15µF        | D         | 1.52              | 1.43    | .88     | .86     |
| 545334             | 15µF        | D         | .66               | .60     | .33     | .328    |
| 597433             | 22µF        | D         | 3.95              | 3.12    | 2.51    | 2.39    |
| 545351             | 22µF        | D         | 1.32              | 1.17    | .56     | .545    |

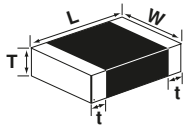
\* Repackaged; please order in quantity increments shown

## Resin Molded Chip Tantalum Electrolytic Capacitors (±20%)

• Case sizes and photos are same as above

| 10V SMT                           |             |           | Pricing per each* |        |         |         |
|-----------------------------------|-------------|-----------|-------------------|--------|---------|---------|
| Part No.                          | Capacitance | Case Size | 10                | 100    | 500     | 1000    |
| Other Manufacturers — Great Deals |             |           |                   |        |         |         |
| 87020                             | ⊕ 10µF      | B         | \$ .203           | \$ .15 | \$ .136 | \$ .102 |
| 87118                             | ⊕ 100µF     | D         | .80               | .76    | .73     | .69     |

| JAMECO                            |             | 16V SMT |           | Pricing per each* |         |         |         |
|-----------------------------------|-------------|---------|-----------|-------------------|---------|---------|---------|
| ValuePro                          |             |         | Case Size | 10                | 100     | 500     | 1000    |
| Part No.                          | Capacitance |         | Size      |                   |         |         |         |
| 545246                            | 10µF        | C       |           | \$ .275           | \$ .243 | \$ .138 | \$ .136 |
| Other Manufacturers — Great Deals |             |         |           |                   |         |         |         |
| 87038                             | 10µF        | C       |           | \$ .207           | \$ .175 | \$ .116 | \$ .108 |






## Multilayer Ceramic Chip Capacitors

### X7R Series (±10%)

SMT Case Dimensions (mm)

|   | 0402 | 0603 |
|---|------|------|
| L | 1.0  | 1.6  |
| W | 0.5  | 0.81 |
| T | 1.02 | 1.02 |
| t | 0.25 | 0.35 |

| JAMECO                            |  | 0402 SMT |        | Pricing per each* |        |        |  |
|-----------------------------------|--|----------|--------|-------------------|--------|--------|--|
| ValuePro                          |  |          |        |                   |        |        |  |
| Part No.                          | Capacitance  | Volt.    | 10     | 100               | 500    | 1000   |  |
| 543751                            |  560pF  | 50       | \$.078 | \$.064            | \$.061 | \$.058 |  |
| 543734                            |  1000pF | 50       | .087   | .051              | .03    | .021   |  |
| 543769                            |  .01µF  | 50       | .088   | .059              | .048   | .033   |  |
| Other Manufacturers — Great Deals |  |          |        |                   |        |        |  |
| 646485                            | 330pF  | 50       | \$.231 | \$.137            | \$.079 | \$.056 |  |
| 646493                            | 390pF  | 50       | .077   | .046              | .026   | .018   |  |
| 646506                            | 470pF  | 50       | .231   | .133              | .079   | .055   |  |
| 646514                            | 560pF  | 50       | .077   | .046              | .026   | .018   |  |
| 646522                            | 680pF  | 50       | .077   | .046              | .026   | .018   |  |
| 646531                            | 820pF  | 50       | .077   | .046              | .026   | .018   |  |
| 646549                            | 1000pF   | 50       | .077   | .046              | .026   | .018   |  |
| 646557                            | 1200pF   | 50       | .077   | .046              | .026   | .018   |  |
| 646565                            | 1500pF   | 50       | .231   | .137              | .079   | .055   |  |
| 646573                            | 1800pF   | 50       | .231   | .137              | .079   | .055   |  |
| 646581                            | 2200pF   | 50       | .193   | .114              | .065   | .046   |  |
| 646590                            | 2700pF   | 50       | .231   | .137              | .079   | .055   |  |

| 0402 SMT (Continued)              |             |       | Pricing per each* |         |         |         |
|-----------------------------------|-------------|-------|-------------------|---------|---------|---------|
| Part No.                          | Capacitance | Volt. | 10                | 100     | 500     | 1000    |
| Other Manufacturers — Great Deals |             |       |                   |         |         |         |
| 646602                            | 3300pF      | 50    | \$ .077           | \$ .046 | \$ .026 | \$ .018 |
| 646611                            | 3900pF      | 50    | .231              | .137    | .079    | .055    |
| 646629                            | 4700pF      | 50    | .077              | .046    | .026    | .018    |
| 646637                            | 5600pF      | 50    | .154              | .091    | .053    | .036    |
| 646645                            | 6800pF      | 50    | .154              | .091    | .053    | .036    |
| 646653                            | 8200pF      | 50    | .154              | .091    | .053    | .036    |
| 646661                            | .01µF       | 16    | .077              | .046    | .026    | .018    |
| 646670                            | .012µF      | 16    | .077              | .046    | .026    | .018    |
| 646688                            | .015µF      | 16    | .077              | .046    | .026    | .018    |
| 646696                            | .018µF      | 16    | .077              | .046    | .026    | .018    |
| 646709                            | .022µF      | 16    | .077              | .046    | .026    | .018    |

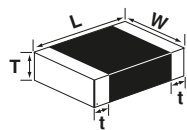
| JAMECO   |             | 0603 SMT |        | Pricing per each* |       |        |  |
|----------|-------------|----------|--------|-------------------|-------|--------|--|
| ValuePro |             |          |        |                   |       |        |  |
| Part No. | Capacitance | Volt.    | 10     | 100               | 500   | 1000   |  |
| 544083   | Ⓜ 470pF     | 16       | \$.095 | \$.055            | \$.04 | \$.034 |  |
| 544041   | Ⓜ 1000pF    | 50       | .074   | .047              | .024  | .017   |  |
| 543831   | Ⓜ 1000pF    | 100      | .087   | .052              | .03   | .021   |  |
| 543857   | Ⓜ 2200pF    | 100      | .165   | .099              | .04   | .024   |  |
| 543865   | Ⓜ 3300pF    | 100      | .15    | .088              | .04   | .024   |  |
| 543873   | Ⓜ 4700pF    | 25       | .126   | .099              | .057  | .04    |  |
| 544059   | Ⓜ .01μF     | 50       | .079   | .047              | .024  | .017   |  |
| 543849   | Ⓜ .01μF     | 100      | .279   | .184              | .123  | .086   |  |
| 544067   | Ⓜ .015μF    | 50       | .087   | .045              | .03   | .021   |  |
| 544075   | Ⓜ .022μF    | 50       | .087   | .046              | .037  | .021   |  |
| 543881   | Ⓜ .047μF    | 25       | .091   | .06               | .054  | .042   |  |
| 544091   | Ⓜ .1μF      | 16       | .079   | .047              | .024  | .017   |  |

\* Repackaged; please order in quantity increments shown

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 322.

# Surface Mount Ceramic Chip Capacitors (Continued)

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |



## Multilayer Ceramic Chip Capacitors

### X7R Series (±10%)

| 0603 SMT                                 |             |       | Pricing per each* |        |        |        |
|--|-------------|-------|-------------------|--------|--------|--------|
| Part No.                                 | Capacitance | Volt. | 10                | 100    | 500    | 1000   |
| <b>Other Manufacturers — Great Deals</b> |             |       |                   |        |        |        |
| 649483                                   | 1000pF      | 50    | \$.062            | \$.036 | \$.021 | \$.015 |
| 649491                                   | 1200pF      | 50    | .077              | .046   | .026   | .018   |
| 649504                                   | 1500pF      | 50    | .077              | .046   | .026   | .018   |
| 649512                                   | 1800pF      | 50    | .077              | .046   | .026   | .018   |
| 649521                                   | 2200pF      | 50    | .077              | .046   | .026   | .018   |
| 649539                                   | 2700pF      | 50    | .077              | .046   | .026   | .018   |
| 649547                                   | 3300pF      | 50    | .154              | .091   | .053   | .036   |
| 649555                                   | 3900pF      | 50    | .063              | .046   | .026   | .018   |
| 649563                                   | 4700pF      | 50    | .131              | .077   | .045   | .031   |
| 649571                                   | 5600pF      | 50    | .077              | .046   | .026   | .018   |
| 649580                                   | 6800pF      | 50    | .112              | .087   | .05    | .035   |
| 649598                                   | 8200pF      | 50    | .077              | .046   | .026   | .018   |
| 649601                                   | .01µF       | 50    | .062              | .036   | .021   | .015   |
| 649619                                   | .012µF      | 50    | .077              | .046   | .026   | .018   |
| 649627                                   | .015µF      | 50    | .077              | .046   | .026   | .018   |
| 649635                                   | .018µF      | 50    | .077              | .046   | .026   | .018   |
| 649643                                   | .022µF      | 50    | .077              | .046   | .026   | .018   |
| 649651                                   | .027µF      | 50    | .077              | .046   | .026   | .018   |
| 649660                                   | .033µF      | 50    | .077              | .046   | .026   | .018   |
| 649678                                   | .039µF      | 50    | .077              | .046   | .026   | .018   |

| 0805 SMT |             |       | Pricing per each* |        |       |        |
|----------|-------------|-------|-------------------|--------|-------|--------|
| Part No. | Capacitance | Volt. | 10                | 100    | 500   | 1000   |
| 544323   | 1000pF      | 50    | \$.079            | \$.051 | \$.03 | \$.021 |
| 544235   | 1000pF      | 200   | .21               | .20    | .17   | .146   |
| 544201   | 2200pF      | 100   | .087              | .051   | .03   | .021   |
| 544227   | 3300pF      | 100   | .087              | .052   | .03   | .021   |
| 544382   | 4700pF      | 50    | .071              | .051   | .03   | .021   |
| 87313    | .01µF       | 50    | .048              | .029   | .017  | .01    |
| 544198   | .01µF       | 100   | .087              | .051   | .03   | .021   |
| 544331   | .01µF       | 50    | .071              | .051   | .03   | .021   |
| 544219   | .022µF      | 100   | .19               | .125   | .072  | .037   |
| 544366   | .033µF      | 50    | .119              | .104   | .06   | .042   |
| 544374   | .039µF      | 50    | .087              | .051   | .03   | .021   |
| 544391   | .047µF      | 50    | .087              | .051   | .03   | .021   |
| 544403   | .068µF      | 50    | .087              | .051   | .03   | .021   |
| 544462   | .1µF        | 16    | .257              | .24    | .15   | .073   |
| 87371    | .1µF        | 25    | .09               | .06    | .05   | .04    |
| 544340   | .1µF        | 50    | .087              | .051   | .03   | .021   |
| 544438   | .22µF       | 16    | .13               | .077   | .045  | .031   |
| 544243   | .22µF       | 25    | .174              | .104   | .06   | .042   |
| 544358   | .22µF       | 50    | .087              | .051   | .03   | .021   |
| 544446   | .33µF       | 16    | .348              | .208   | .12   | .084   |
| 544454   | .47µF       | 16    | .348              | .208   | .12   | .084   |
| 544471   | .1µF        | 10    | .388              | .376   | .304  | .178   |

| <b>Other Manufacturers — Great Deals</b> |        |    |        |        |        |        |
|--|--------|----|--------|--------|--------|--------|
| 650257                                   | 3300pF | 50 | \$.077 | \$.046 | \$.026 | \$.018 |
| 650265                                   | 3900pF | 50 | .07    | .056   | .053   | .036   |
| 650273                                   | 4700pF | 50 | .07    | .046   | .026   | .018   |
| 650281                                   | 5600pF | 50 | .154   | .091   | .053   | .036   |
| 650290                                   | 6800pF | 50 | .154   | .091   | .053   | .036   |
| 650302                                   | 8200pF | 50 | .162   | .096   | .055   | .038   |
| 650311                                   | .012µF | 50 | .077   | .046   | .026   | .018   |
| 650329                                   | .015µF | 50 | .119   | .091   | .053   | .036   |
| 650337                                   | .018µF | 50 | .154   | .091   | .053   | .036   |
| 650345                                   | .022µF | 50 | .077   | .046   | .026   | .018   |
| 650353                                   | .027µF | 50 | .077   | .046   | .026   | .018   |
| 650361                                   | .033µF | 50 | .105   | .091   | .053   | .036   |
| 650370                                   | .039µF | 50 | .077   | .046   | .026   | .018   |

| 0805 SMT                                 |             |       | Pricing per each* |        |        |        |
|--|-------------|-------|-------------------|--------|--------|--------|
| Part No.                                 | Capacitance | Volt. | 10                | 100    | 500    | 1000   |
| <b>Other Manufacturers — Great Deals</b> |             |       |                   |        |        |        |
| 650388                                   | .047µF      | 50    | \$.077            | \$.046 | \$.026 | \$.018 |
| 650396                                   | .056µF      | 50    | .077              | .046   | .026   | .018   |
| 650409                                   | .068µF      | 50    | .077              | .046   | .026   | .018   |
| 650417                                   | .082µF      | 50    | .077              | .046   | .026   | .018   |
| 87370                                    | .1µF        | 25    | .048              | .033   | .022   | .016   |
| 650425                                   | .1µF        | 50    | .077              | .046   | .026   | .018   |
| 650441                                   | .22µF       | 16    | .116              | .068   | .039   | .027   |
| 650450                                   | .33µF       | 16    | .182              | .105   | .073   | .066   |
| 650468                                   | .47µF       | 16    | .182              | .105   | .073   | .066   |
| 650476                                   | .1µF        | 10    | .329              | .263   | .182   | .164   |

| 1206 SMT |             |       | Pricing per each* |        |        |        |
|----------|-------------|-------|-------------------|--------|--------|--------|
| Part No. | Capacitance | Volt. | 10                | 100    | 500    | 1000   |
| 544585   | 1000pF      | 100   | \$.158            | \$.144 | \$.087 | \$.037 |
| 544614   | 2000pF      | 100   | .158              | .144   | .087   | .035   |
| 544649   | 4700pF      | 100   | .158              | .144   | .087   | .035   |
| 544593   | .01µF       | 100   | .10               | .085   | .067   | .05    |
| 544622   | .022µF      | 100   | .158              | .144   | .09    | .031   |
| 544631   | .033µF      | 100   | .158              | .144   | .12    | .035   |
| 544657   | .047µF      | 100   | .158              | .144   | .12    | .035   |
| 544702   | .1µF        | 50    | .113              | .097   | .06    | .042   |
| 87390    | .1µF        | 50    | .084              | .055   | .038   | .037   |
| 544606   | .1µF        | 100   | .209              | .182   | .105   | .073   |
| 544711   | .22µF       | 50    | .261              | .156   | .09    | .062   |
| 544729   | .33µF       | 50    | .352              | .312   | .182   | .087   |
| 544673   | .47µF       | 25    | .435              | .26    | .15    | .105   |
| 544665   | .1µF        | 25    | .348              | .208   | .12    | .084   |

| <b>Other Manufacturers — Great Deals</b> |        |    |       |        |        |       |
|--|--------|----|-------|--------|--------|-------|
| 651137                                   | 1000pF | 50 | \$.14 | \$.125 | \$.072 | \$.05 |
| 651145                                   | 1200pF | 50 | .212  | .125   | .072   | .05   |
| 651153                                   | 1500pF | 50 | .212  | .125   | .072   | .05   |
| 651161                                   | 1800pF | 50 | .212  | .125   | .072   | .05   |
| 651170                                   | 2200pF | 50 | .154  | .125   | .072   | .05   |
| 651188                                   | 3300pF | 50 | .14   | .125   | .072   | .05   |
| 651196                                   | 3900pF | 50 | .212  | .125   | .072   | .05   |
| 651209                                   | 4700pF | 50 | .14   | .13    | .092   | .064  |
| 651217                                   | 5600pF | 50 | .212  | .125   | .072   | .05   |
| 651225                                   | 6800pF | 50 | .126  | .105   | .072   | .05   |
| 651233                                   | 8200pF | 50 | .212  | .125   | .072   | .05   |
| 87329                                    | .01µF  | 50 | .081  | .054   | .034   | .024  |
| 651241                                   | .012µF | 50 | .223  | .132   | .076   | .053  |
| 651250                                   | .015µF | 50 | .223  | .132   | .076   | .053  |
| 651268                                   | .018µF | 50 | .223  | .132   | .076   | .053  |
| 651276                                   | .022µF | 50 | .161  | .132   | .076   | .053  |
| 651284                                   | .027µF | 50 | .161  | .132   | .076   | .053  |
| 651292                                   | .033µF | 50 | .14   | .126   | .076   | .053  |
| 651305                                   | .039µF | 50 | .223  | .132   | .076   | .053  |
| 651313                                   | .047µF | 50 | .14   | .126   | .076   | .053  |
| 651321                                   | .056µF | 50 | .246  | .146   | .084   | .058  |
| 651330                                   | .068µF | 50 | .246  | .146   | .084   | .058  |
| 651348                                   | .082µF | 50 | .246  | .146   | .084   | .058  |
| 87388                                    | .1µF   | 50 | .049  | .029   | .019   | .016  |
| 651356                                   | .12µF  | 50 | .231  | .137   | .079   | .055  |
| 651364                                   | .15µF  | 50 | .231  | .137   | .079   | .055  |
| 651372                                   | .18µF  | 50 | .231  | .137   | .079   | .055  |
| 651381                                   | .22µF  | 50 | .231  | .137   | .079   | .055  |
| 651399                                   | .27µF  | 50 | .182  | .105   | .073   | .066  |
| 651401                                   | .33µF  | 50 | .306  | .281   | .164   | .114  |
| 651410                                   | .47µF  | 50 | .228  | .131   | .091   | .082  |
| 651436                                   | .1µF   | 16 | .399  | .26    | .18    | .162  |
| 651428                                   | .1µF   | 25 | .182  | .105   | .073   | .066  |
| 651444                                   | 2.2µF  | 10 | .55   | .315   | .218   | .196  |

### SMT Case Dimensions (mm)

|   | 0402 | 0603 | 0805  | 1206 | 1210 | 1812 |
|---|------|------|-------|------|------|------|
| L | 1.0  | 1.6  | 2.0   | 3.2  | 3.2  | 4.5  |
| W | 0.5  | 0.81 | 1.25  | 1.6  | 2.5  | 3.2  |
| T | 1.02 | 1.02 | 0.065 | 1.55 | 1.02 | 1.52 |
| t | 0.25 | 0.35 | 0.25  | 0.5  | 0.5  | 0.61 |

| 1210 SMT                                 |             |       | Pricing per each* |        |        |        |
|--|-------------|-------|-------------------|--------|--------|--------|
| Part No.                                 | Capacitance | Volt. | 10                | 100    | 500    | 1000   |
| 544770                                   | .1µF        | 50    | \$.238            | \$.224 | \$.194 | \$.13  |
| 544761                                   | .1µF        | 100   | .238              | .224   | .15    | .104   |
| 544788                                   | .22µF       | 50    | .323              | .304   | .188   | .131   |
| 544796                                   | .47µF       | 50    | .63               | .57    | .334   | .163   |
| <b>Other Manufacturers — Great Deals</b> |             |       |                   |        |        |        |
| 651612                                   | .1µF        | 50    | \$.224            | \$.196 | \$.176 | \$.112 |
| 651639                                   | .22µF       | 50    | .27               | .16    | .11    | .10    |
| 651647                                   | .33µF       | 50    | .46               | .29    | .20    | .18    |
| 651655                                   | .47µF       | 50    | .50               | .29    | .20    | .18    |
| 651663                                   | .1µF        | 50    | .57               | .46    | .32    | .29    |
| 651671                                   | 2.2µF       | 25    | 1.34              | .93    | .534   | .481   |
| 651680                                   | 4.7µF       | 16    | 1.15              | .92    | .59    | .53    |
| 651701                                   | 4.7µF       | 25    | 1.31              | .78    | .45    | .405   |
| 651698                                   | 10µF        | 10    | 1.21              | .70    | .33    | .30    |

| 1812 SMT |             |       | Pricing per each* |        |       |        |
|----------|-------------|-------|-------------------|--------|-------|--------|
| Part No. | Capacitance | Volt. | 10                | 100    | 500   | 1000   |
| 544817   | .1µF        | 50    | \$1.40            | \$1.32 | \$.77 | \$.372 |

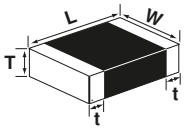
### COG Series (±5%)

| 0603 SMT |             |       | Pricing per each* |        |        |       |
|----------|-------------|-------|-------------------|--------|--------|-------|
| Part No. | Capacitance | Volt. | 10                | 100    | 500    | 1000  |
| 543785   | 10pF        | 100   | \$.165            | \$.099 | \$.057 | \$.04 |
| 543806   | 22pF        | 100   | .087              | .052   | .03    | .021  |
| 543814   | 33pF        | 100   | .087              | .052   | .03    | .021  |
| 543793   | 100pF       | 100   | .087              | .052   | .03    | .021  |
| 543988   | 270pF       | 50    | .087              | .052   | .03    | .021  |
| 544008   | 330pF       | 50    | .131              | .104   | .06    | .042  |
| 543822   | 680pF       | 100   | .087              | .052   | .029   | .025  |

| 0805 SMT |             |       | Pricing per each* |        |       |        |
|----------|-------------|-------|-------------------|--------|-------|--------|
| Part No. | Capacitance | Volt. | 10                | 100    | 500   | 1000   |
| 544121   | 10pF        | 100   | \$.079            | \$.071 | \$.06 | \$.042 |
| 544155   | 15pF        | 100   | .134              | .104   | .06   | .042   |
| 544286   | 270pF       | 50    | .134              | .104   | .06   | .042   |
| 544294   | 330pF       | 50    | .087              | .051   | .03   | .021   |
| 544307   | 470pF       | 50    | .104              | .062   | .036  | .025   |
| 544315   | 680pF       | 50    | .15               | .104   | .06   | .042   |
| 544260   | 1000pF      | 50    | .169              | .154   | .15   | .146   |
| 544147   | 1000pF      | 100   | .19               | .156   | .09   | .062   |
| 544278   | 2200pF      | 50    | .235              | .14    | .081  | .056   |

| JAMECO   |             | 1206 SMT |       | Pricing per each* |        |        |  |
|----------|-------------|----------|-------|-------------------|--------|--------|--|
| ValuePro |             |          |       |                   |        |        |  |
| Part No. | Capacitance | Volt.    | 10    | 100               | 500    | 1000   |  |
| 544551   | ꢀ 330pF     | 100      | \$.19 | \$.176            | \$.144 | \$.122 |  |
| 544681   | ꢀ 1000pF    | 50       | .257  | .24               | .14    | .063   |  |
| 544690   | ꢀ 2200pF    | 50       | .286  | .272              | .16    | .062   |  |






## Multilayer Ceramic Chip Capacitors

SMT Case Dimensions (mm)

|   | 0402 | 0603 | 0805  | 1206 | 1210 | 1812 |
|---|------|------|-------|------|------|------|
| L | 1.0  | 1.6  | 2.0   | 3.2  | 3.2  | 4.5  |
| W | 0.5  | 0.81 | 1.25  | 1.6  | 2.5  | 3.2  |
| T | 1.02 | 1.02 | 0.065 | 1.55 | 1.02 | 1.52 |
| t | 0.25 | 0.35 | 0.25  | 0.5  | 0.5  | 0.61 |

### X5R Series (±10%)

| JAMECO ValuePro 0603 SMT          |   | Pricing per each* |         |        |        |        |  |
|-----------------------------------|---|-------------------|---------|--------|--------|--------|--|
| Part No.                          | Capacitance   | Volt.             | 10      | 100    | 500    | 1000   |  |
| 544104                            |  1µF | 10                | \$ .139 | \$.083 | \$.041 | \$.034 |  |
| Other Manufacturers — Great Deals |   |                   |         |        |        |        |  |
| 649686                            | 1µF   | 25                | \$.205  | \$.159 | \$.092 | \$.064 |  |
| 649707                            | .22µF   | 16                | .267    | .182   | .105   | .073   |  |
| 649694                            | .22µF   | 25                | .288    | .205   | .118   | .082   |  |
| 649715                            | .33µF   | 16                | .131    | .077   | .045   | .031   |  |
| 649723                            | .47µF   | 16                | .131    | .077   | .045   | .031   |  |
| 649758                            | 1µF   | 6.3               | .35     | .273   | .158   | .109   |  |
| 649740                            | 1µF   | 10                | .042    | .032   | .023   | .014   |  |
| 649731                            | 1µF   | 16                | .154    | .091   | .053   | .036   |  |
| 649766                            | 2.2µF   | 6.3               | .267    | .182   | .105   | .073   |  |
| 649774                            | 4.7µF   | 6.3               | .45     | .364   | .146   | .125   |  |




### X5R Series (±10%) (Continued)


| 1812 SMT                          |             | Pricing per each* |        |        |       |       |  |
|-----------------------------------|-------------|-------------------|--------|--------|-------|-------|--|
| Part No.                          | Capacitance | Volt.             | 10     | 100    | 500   | 1000  |  |
| Other Manufacturers — Great Deals |             |                   |        |        |       |       |  |
| 651831                            | 1µF         | 50                | \$1.26 | \$1.19 | \$.70 | \$.63 |  |
| 651840                            | 10µF        | 25                | 2.42   | 1.97   | 1.77  | 1.58  |  |
| 651858                            | 22µF        | 10                | 2.62   | 1.97   | 1.77  | 1.58  |  |
| 651866                            | 47µF        | 6.3               | 5.94   | 3.56   | 3.20  | 2.88  |  |
| 651874                            | 100µF       | 6.3               | 2.19   | 2.01   | 1.81  | 1.63  |  |


### NPO Temp Series (±5%)













| 0402 SMT                          |             | Pricing per each* |        |        |        |        |  |
|-----------------------------------|-------------|-------------------|--------|--------|--------|--------|--|
| Part No.                          | Capacitance | Volt.             | 10     | 100    | 500    | 1000   |  |
| Other Manufacturers — Great Deals |             |                   |        |        |        |        |  |
| 645984                            | 1pF         | 50                | \$.077 | \$.046 | \$.026 | \$.018 |  |
| 645992                            | 2.2pF       | 50                | .231   | .133   | .079   | .055   |  |
| 646004                            | 3.3pF       | 50                | .231   | .133   | .079   | .055   |  |
| 646012                            | 3.9pF       | 50                | .231   | .133   | .105   | .073   |  |
| 646021                            | 4.7pF       | 50                | .231   | .133   | .105   | .073   |  |
| 646039                            | 5.6pF       | 50                | .231   | .133   | .079   | .055   |  |
| 646047                            | 6.8pF       | 50                | .231   | .133   | .105   | .073   |  |
| 646055                            | 8.2pF       | 50                | .231   | .137   | .079   | .055   |  |
| 646063                            | 10pF        | 50                | .077   | .046   | .026   | .018   |  |
| 646071                            | 15pF        | 50                | .077   | .046   | .026   | .018   |  |
| 646080                            | 18pF        | 50                | .077   | .046   | .026   | .018   |  |
| 646098                            | 22pF        | 50                | .077   | .046   | .026   | .018   |  |
| 646101                            | 27pF        | 50                | .077   | .046   | .026   | .018   |  |
| 646119                            | 33pF        | 50                | .077   | .046   | .026   | .018   |  |
| 646127                            | 39pF        | 50                | .077   | .046   | .026   | .018   |  |
| 646135                            | 47pF        | 50                | .077   | .046   | .026   | .018   |  |
| 646143                            | 56pF        | 50                | .077   | .046   | .026   | .018   |  |
| 646151                            | 68pF        | 50                | .077   | .046   | .026   | .018   |  |
| 646160                            | 82pF        | 50                | .231   | .137   | .079   | .055   |  |
| 646178                            | 100pF       | 50                | .193   | .114   | .065   | .046   |  |
| 646186                            | 120pF       | 50                | .077   | .046   | .026   | .018   |  |
| 646194                            | 150pF       | 50                | .046   | .035   | .026   | .018   |  |
| 646207                            | 180pF       | 50                | .077   | .046   | .026   | .018   |  |
| 646215                            | 220pF       | 50                | .231   | .137   | .079   | .055   |  |






| 0603 SMT (Continued)              |             | Pricing per each* |        |        |       |        |  |
|-----------------------------------|-------------|-------------------|--------|--------|-------|--------|--|
| Part No.                          | Capacitance | Volt.             | 10     | 100    | 500   | 1000   |  |
| Other Manufacturers — Great Deals |             |                   |        |        |       |        |  |
| 646821                            | 18pF        | 50                | \$.133 | \$.077 | \$.05 | \$.021 |  |
| 646830                            | 22pF        | 50                | .077   | .053   | .046  | .018   |  |
| 646848                            | 27pF        | 50                | .077   | .046   | .026  | .018   |  |
| 646856                            | 33pF        | 50                | .116   | .068   | .039  | .021   |  |
| 646864                            | 39pF        | 50                | .133   | .077   | .05   | .031   |  |
| 646872                            | 47pF        | 50                | .077   | .046   | .026  | .018   |  |
| 646881                            | 56pF        | 50                | .146   | .087   | .05   | .035   |  |
| 646899                            | 68pF        | 50                | .154   | .091   | .053  | .021   |  |
| 646901                            | 82pF        | 50                | .146   | .087   | .05   | .035   |  |
| 646910                            | 100pF       | 50                | .077   | .046   | .026  | .018   |  |
| 646928                            | 120pF       | 50                | .154   | .091   | .053  | .021   |  |
| 646936                            | 150pF       | 50                | .077   | .046   | .026  | .018   |  |
| 646944                            | 180pF       | 50                | .077   | .046   | .026  | .018   |  |
| 646952                            | 220pF       | 50                | .154   | .091   | .053  | .036   |  |
| 646961                            | 270pF       | 50                | .077   | .046   | .026  | .018   |  |
| 646979                            | 330pF       | 50                | .154   | .091   | .053  | .036   |  |
| 646987                            | 390pF       | 50                | .147   | .091   | .053  | .035   |  |
| 646995                            | 470pF       | 50                | .077   | .046   | .026  | .018   |  |
| 647007                            | 560pF       | 50                | .154   | .091   | .053  | .036   |  |
| 647015                            | 680pF       | 50                | .154   | .091   | .053  | .036   |  |
| 647023                            | 820pF       | 50                | .193   | .114   | .066  | .046   |  |
| 647031                            | 1000pF      | 50                | .077   | .046   | .026  | .021   |  |

| JAMECO ValuePro 0805 SMT          |   | Pricing per each* |         |        |        |        |  |
|-----------------------------------|---|-------------------|---------|--------|--------|--------|--|
| Part No.                          | Capacitance   | Volt.             | 10      | 100    | 500    | 1000   |  |
| 544489                            |  2.2µF | 10                | \$ .348 | \$.208 | \$.122 | \$.084 |  |
| 544420                            |  4.7µF | 6.3               | .478    | .286   | .167   | .116   |  |
| 544411                            |  10µF  | 6.3               | .211    | .186   | .177   | .168   |  |
| Other Manufacturers — Great Deals |   |                   |         |        |        |        |  |
| 650484                            | .33µF   | 25                | \$.467  | \$.341 | \$.197 | \$.137 |  |
| 650492                            | .47µF   | 25                | .467    | .36    | .144   | .099   |  |
| 650530                            | 1µF   | 10                | .27     | .182   | .105   | .073   |  |
| 650513                            | 1µF   | 16                | .193    | .114   | .066   | .046   |  |
| 650505                            | 1µF   | 25                | .65     | .50    | .289   | .20    |  |
| 650548                            | 2.2µF   | 10                | .257    | .182   | .105   | .073   |  |
| 650521                            | 2.2µF   | 16                | .57     | .41    | .236   | .164   |  |
| 650556                            | 3.3µF   | 10                | .357    | .273   | .158   | .109   |  |
| 650572                            | 4.7µF   | 6.3               | .25     | .14    | .10    | .09    |  |
| 650564                            | 4.7µF   | 10                | .357    | .296   | .171   | .118   |  |
| 650581                            | 10µF  | 6.3               | .46     | .26    | .18    | .16    |  |

| JAMECO ValuePro 1206 SMT          |   | Pricing per each* |        |        |        |        |  |
|-----------------------------------|---|-------------------|--------|--------|--------|--------|--|
| Part No.                          | Capacitance   | Volt.             | 10     | 100    | 500    | 1000   |  |
| 544753                            |  4.7µF | 10                | \$ .56 | \$.468 | \$.273 | \$.19  |  |
| Other Manufacturers — Great Deals |   |                   |        |        |        |        |  |
| 651479                            | 2.2µF   | 16                | \$.41  | \$.236 | \$.164 | \$.148 |  |
| 651452                            | 2.2µF   | 25                | .364   | .21    | .146   | .131   |  |
| 651508                            | 4.7µF   | 10                | .41    | .236   | .164   | .148   |  |
| 651487                            | 4.7µF   | 16                | 1.10   | .84    | .486   | .437   |  |
| 651461                            | 4.7µF   | 25                | .455   | .263   | .182   | .164   |  |
| 651532                            | 10µF  | 6.3               | .84    | .59    | .341   | .237   |  |
| 651516                            | 10µF  | 10                | .50    | .289   | .20    | .18    |  |
| 651495                            | 10µF  | 16                | 1.48   | .87    | .50    | .475   |  |
| 651524                            | 22µF  | 6.3               | 1.02   | .59    | .54    | .513   |  |

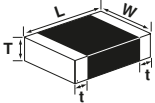
| JAMECO ValuePro 1210 SMT          |  | Pricing per each* |        |        |       |        |  |
|-----------------------------------|--|-------------------|--------|--------|-------|--------|--|
| Part No.                          | Capacitance  | Volt.             | 10     | 100    | 500   | 1000   |  |
| 544809                            |  10µF | 10                | \$1.80 | \$1.08 | \$.62 | \$.432 |  |
| Other Manufacturers — Great Deals |  |                   |        |        |       |        |  |
| 651727                            | 4.7µF  | 16                | \$.73  | \$.42  | \$.29 | \$.26  |  |
| 651786                            | 10µF   | 10                | 1.62   | .97    | .56   | .504   |  |
| 651735                            | 10µF   | 16                | 1.09   | .63    | .437  | .393   |  |
| 651719                            | 10µF   | 25                | 1.01   | .60    | .42   | .38    |  |
| 651751                            | 22µF   | 6.3               | 3.01   | 2.53   | 1.04  | .94    |  |
| 651794                            | 22µF   | 10                | 2.54   | 1.52   | .88   | .80    |  |
| 651743                            | 22µF   | 16                | 1.98   | 1.75   | 1.17  | 1.05   |  |
| 651760                            | 47µF   | 6.3               | 1.69   | 1.63   | 1.55  | 1.47   |  |
| 651778                            | 100µF  | 6.3               | 5.62   | 3.37   | 1.95  | 1.75   |  |

| JAMECO ValuePro 0603 SMT          |   | Pricing per each* |        |        |       |        |  |
|-----------------------------------|---|-------------------|--------|--------|-------|--------|--|
| Part No.                          | Capacitance   | Volt.             | 10     | 100    | 500   | 1000   |  |
| 543902                            |  10pF  | 50                | \$.074 | \$.063 | \$.04 | \$.024 |  |
| 543911                            |  12pF  | 50                | .131   | .055   | .044  | .031   |  |
| 543937                            |  15pF  | 50                | .074   | .059   | .03   | .021   |  |
| 543953                            |  18pF  | 50                | .074   | .063   | .04   | .024   |  |
| 543961                            |  22pF  | 50                | .074   | .059   | .03   | .021   |  |
| 543996                            |  33pF  | 50                | .074   | .063   | .04   | .024   |  |
| 544016                            |  39pF  | 50                | .074   | .063   | .04   | .034   |  |
| 544024                            |  47pF  | 50                | .087   | .051   | .03   | .021   |  |
| 544032                            |  82pF  | 50                | .165   | .099   | .057  | .04    |  |
| 543929                            |  120pF | 50                | .074   | .063   | .04   | .024   |  |
| 543945                            |  150pF | 50                | .082   | .059   | .03   | .021   |  |
| 543970                            |  220pF | 50                | .082   | .069   | .049  | .037   |  |
| Other Manufacturers — Great Deals |   |                   |        |        |       |        |  |
| 646725                            | 1pF   | 50                | \$.14  | \$.087 | \$.05 | \$.035 |  |
| 646733                            | 2.2pF   | 50                | .133   | .077   | .05   | .035   |  |
| 646741                            | 3.3pF   | 50                | .146   | .087   | .05   | .021   |  |
| 646750                            | 3.9pF   | 50                | .146   | .087   | .05   | .035   |  |
| 646768                            | 4.7pF   | 50                | .146   | .087   | .05   | .035   |  |
| 646776                            | 5.6pF   | 50                | .146   | .087   | .05   | .035   |  |
| 646784                            | 6.8pF   | 50                | .146   | .087   | .05   | .035   |  |
| 646792                            | 8.2pF   | 50                | .146   | .087   | .05   | .035   |  |
| 646805                            | 10pF  | 50                | .131   | .077   | .045  | .021   |  |
| 646813                            | 15pF  | 50                | .077   | .046   | .026  | .018   |  |

| JAMECO<br>ValuePro                |   | 0805 SMT |        | Pricing per each* |        |        |  |
|-----------------------------------|---|----------|--------|-------------------|--------|--------|--|
| Part No.                          | Capacitance   | Volt.    | 10     | 100               | 500    | 1000   |  |
| 544171                            |  47pF   | 100      | \$.079 | \$.072            | \$.06  | \$.042 |  |
| 544251                            |  100pF | 50       | .087   | .051              | .03    | .021   |  |
| 544139                            |  100pF | 100      | .079   | .071              | .06    | .042   |  |
| 544163                            |  220pF | 100      | .134   | .12               | .081   | .056   |  |
| 544180                            |  470pF | 100      | .134   | .104              | .06    | .042   |  |
| Other Manufacturers — Great Deals |   |          |        |                   |        |        |  |
| 649900                            | 1pF   | 50       | \$.07  | \$.056            | \$.053 | \$.036 |  |
| 649918                            | 2.2pF   | 50       | .162   | .096              | .055   | .038   |  |
| 649926                            | 3.3pF   | 50       | .162   | .096              | .055   | .038   |  |
| 649934                            | 3.9pF   | 50       | .162   | .096              | .055   | .038   |  |
| 649942                            | 4.7pF   | 50       | .126   | .096              | .055   | .038   |  |
| 649951                            | 5.6pF   | 50       | .126   | .096              | .055   | .038   |  |
| 649969                            | 6.8pF   | 50       | .126   | .096              | .055   | .038   |  |
| 649977                            | 8.2pF   | 50       | .126   | .096              | .055   | .038   |  |
| 649985                            | 10pF  | 50       | .07    | .046              | .026   | .018   |  |
| 649993                            | 15pF  | 50       | .07    | .046              | .026   | .018   |  |
| 650003                            | 18pF  | 50       | .07    | .046              | .026   | .018   |  |
| 650011                            | 22pF  | 50       | .07    | .046              | .026   | .018   |  |
| 650020                            | 27pF  | 50       | .07    | .046              | .026   | .018   |  |
| 650038                            | 33pF  | 50       | .07    | .046              | .026   | .018   |  |
| 650046                            | 39pF  | 50       | .07    | .046              | .026   | .018   |  |
| 650054                            | 47pF  | 50       | .07    | .046              | .026   | .018   |  |
| 650062                            | 56pF  | 50       | .07    | .046              | .026   | .018   |  |
| 650071                            | 68pF  | 50       | .07    | .046              | .026   | .018   |  |
| 650089                            | 82pF  | 50       | .077   | .046              | .026   | .018   |  |
| 650097                            | 100pF   | 50       | .077   | .046              | .026   | .018   |  |
| 650100                            | 120pF   | 50       | .077   | .046              | .026   | .018   |  |
| 650118                            | 150pF   | 50       | .077   | .046              | .026   | .018   |  |
| 650126                            | 180pF   | 50       | .116   | .068              | .039   | .027   |  |
| 650134                            | 220pF   | 50       | .077   | .046              | .026   | .018   |  |
| 650142                            | 270pF   | 50       | .119   | .091              | .053   | .036   |  |
| 650151                            | 330pF   | 50       | .077   | .046              | .026   | .018   |  |
| 650169                            | 390pF   | 50       | .092   | .055              | .032   | .022   |  |
| 650177                            | 470pF   | 50       | .092   | .055              | .032   | .022   |  |
| 650185                            | 560pF   | 50       | .116   | .068              | .039   | .027   |  |

# Surface Mount Ceramic Chip & Transient/Surge Absorbers

Color Code Legend  
New Sale Lower\$ QtySave



## Multilayer Ceramic Chip Capacitors

### NPO Temp Series (±5%) (Continued)

| 0805 SMT (Continued)                     |             |       | Pricing per each* |         |         |         |
|--|-------------|-------|-------------------|---------|---------|---------|
| Part No.                                 | Capacitance | Volt. | 10                | 100     | 500     | 1000    |
| <b>Other Manufacturers — Great Deals</b> |             |       |                   |         |         |         |
| 650193                                   | 680pF       | 50    | \$ .133           | \$ .091 | \$ .053 | \$ .036 |
| 650206                                   | 820pF       | 50    | .116              | .068    | .039    | .027    |
| 650214                                   | 1000pF      | 50    | .154              | .091    | .053    | .036    |
| 650222                                   | 1500pF      | 50    | .208              | .123    | .071    | .049    |
| 650231                                   | 2200pF      | 50    | .208              | .123    | .071    | .049    |
| 650249                                   | 3300pF      | 50    | .43               | .257    | .151    | .104    |

| JAMECO ValuePro 1206 SMT |             |       | Pricing per each* |         |         |         |
|--------------------------|-------------|-------|-------------------|---------|---------|---------|
| Part No.                 | Capacitance | Volt. | 10                | 100     | 500     | 1000    |
| 544497                   | 10pF        | 100   | \$ .19            | \$ .176 | \$ .144 | \$ .122 |
| 544526                   | 15pF        | 100   | .276              | .256    | .191    | .064    |
| 544534                   | 22pF        | 100   | .19               | .176    | .144    | .122    |
| 544542                   | 33pF        | 100   | .342              | .248    | .144    | .043    |
| 544569                   | 47pF        | 100   | .19               | .176    | .144    | .122    |
| 544500                   | 100pF       | 100   | .19               | .176    | .144    | .122    |
| 544577                   | 680pF       | 100   | .257              | .24     | .14     | .059    |
| 544518                   | 1000pF      | 100   | .257              | .24     | .211    | .169    |

|  |        |    |         |         |         |         |
|--|--------|----|---------|---------|---------|---------|
| <b>Other Manufacturers — Great Deals</b> |        |    |         |         |         |         |
| 650716                                   | 1pF    | 50 | \$ .246 | \$ .146 | \$ .084 | \$ .058 |
| 650724                                   | 2.2pF  | 50 | .246    | .146    | .084    | .058    |
| 650732                                   | 3.3pF  | 50 | .246    | .146    | .084    | .058    |
| 650741                                   | 3.9pF  | 50 | .246    | .146    | .084    | .058    |
| 650759                                   | 4.7pF  | 50 | .246    | .146    | .084    | .05     |
| 650767                                   | 5.6pF  | 50 | .246    | .146    | .084    | .058    |
| 650775                                   | 6.8pF  | 50 | .246    | .146    | .084    | .058    |
| 650783                                   | 8.2pF  | 50 | .147    | .126    | .084    | .058    |
| 650791                                   | 10pF   | 50 | .175    | .154    | .10     | .069    |
| 650804                                   | 15pF   | 50 | .189    | .168    | .10     | .069    |
| 650812                                   | 18pF   | 50 | .297    | .178    | .104    | .072    |
| 650821                                   | 22pF   | 50 | .175    | .153    | .088    | .061    |
| 650839                                   | 27pF   | 50 | .297    | .178    | .104    | .072    |
| 650847                                   | 33pF   | 50 | .175    | .154    | .10     | .069    |
| 650855                                   | 39pF   | 50 | .189    | .168    | .10     | .069    |
| 650863                                   | 47pF   | 50 | .175    | .154    | .10     | .069    |
| 650871                                   | 56pF   | 50 | .245    | .178    | .104    | .056    |
| 650880                                   | 68pF   | 50 | .189    | .168    | .10     | .069    |
| 650898                                   | 82pF   | 50 | .297    | .178    | .104    | .072    |
| 650901                                   | 100pF  | 50 | .175    | .154    | .10     | .069    |
| 650919                                   | 120pF  | 50 | .259    | .173    | .10     | .069    |
| 650927                                   | 150pF  | 50 | .259    | .214    | .123    | .086    |
| 650935                                   | 180pF  | 50 | .245    | .18     | .126    | .069    |
| 650943                                   | 220pF  | 50 | .175    | .154    | .123    | .086    |
| 650951                                   | 270pF  | 50 | .364    | .218    | .126    | .088    |
| 650960                                   | 330pF  | 50 | .175    | .154    | .123    | .086    |
| 650978                                   | 390pF  | 50 | .364    | .218    | .126    | .088    |
| 650986                                   | 470pF  | 50 | .238    | .21     | .122    | .085    |
| 650994                                   | 560pF  | 50 | .364    | .218    | .126    | .088    |
| 651006                                   | 680pF  | 50 | .259    | .212    | .122    | .085    |
| 651014                                   | 820pF  | 50 | .364    | .218    | .126    | .088    |
| 651022                                   | 1000pF | 50 | .238    | .21     | .122    | .085    |
| 651031                                   | 1200pF | 50 | .39     | .233    | .135    | .095    |
| 651049                                   | 1500pF | 50 | .39     | .223    | .135    | .095    |
| 651057                                   | 1800pF | 50 | .469    | .281    | .164    | .114    |
| 651065                                   | 2200pF | 50 | .265    | .245    | .143    | .101    |
| 651073                                   | 2700pF | 50 | .098    | .084    | .079    | .07     |
| 651081                                   | 3300pF | 50 | .405    | .295    | .172    | .08     |
| 651090                                   | 3900pF | 50 | .416    | .249    | .144    | .101    |
| 651102                                   | 4700pF | 50 | .416    | .295    | .172    | .12     |
| 651111                                   | 5600pF | 50 | .416    | .295    | .172    | .12     |
| 651129                                   | .01μF  | 25 | .387    | .223    | .192    | .155    |

### Y5V Series (+80%, -20%)

| JAMECO ValuePro 0603 SMT |             |       | Pricing per each* |         |        |         |
|--------------------------|-------------|-------|-------------------|---------|--------|---------|
| Part No.                 | Capacitance | Volt. | 10                | 100     | 500    | 1000    |
| 543890                   | 0.1μF       | 25    | \$ .087           | \$ .052 | \$ .03 | \$ .021 |
| 544112                   | 1μF         | 10    | .087              | .051    | .03    | .021    |

|  |         |    |         |         |         |         |
|--|---------|----|---------|---------|---------|---------|
| <b>Other Manufacturers — Great Deals</b> |         |    |         |         |         |         |
| 650599                                   | 0.01μF  | 50 | \$ .077 | \$ .046 | \$ .026 | \$ .018 |
| 650601                                   | 0.022μF | 50 | .077    | .046    | .026    | .018    |
| 650610                                   | 0.047μF | 50 | .077    | .046    | .026    | .018    |
| 650644                                   | 0.10μF  | 25 | .077    | .046    | .026    | .018    |
| 650628                                   | 0.10μF  | 50 | .077    | .046    | .026    | .018    |
| 650652                                   | 0.22μF  | 25 | .116    | .068    | .039    | .027    |
| 650636                                   | 0.22μF  | 50 | .116    | .068    | .039    | .027    |
| 650661                                   | 0.47μF  | 25 | .154    | .091    | .053    | .036    |
| 650687                                   | 1μF     | 16 | .238    | .21     | .131    | .091    |
| 650679                                   | 1μF     | 25 | .231    | .137    | .079    | .055    |
| 650695                                   | 2.2μF   | 16 | .501    | .296    | .171    | .118    |
| 650708                                   | 4.7μF   | 10 | .65     | .387    | .223    | .155    |

| JAMECO ValuePro 1206 SMT                 |             |       | Pricing per each* |         |         |         |
|--|-------------|-------|-------------------|---------|---------|---------|
| Part No.                                 | Capacitance | Volt. | 10                | 100     | 500     | 1000    |
| 544737                                   | 1μF         | 50    | \$ .304           | \$ .182 | \$ .106 | \$ .074 |
| 544745                                   | 4.7μF       | 16    | .70               | .416    | .243    | .169    |
| <b>Other Manufacturers — Great Deals</b> |             |       |                   |         |         |         |
| 651541                                   | 0.10μF      | 50    | \$ .231           | \$ .137 | \$ .079 | \$ .055 |
| 651559                                   | 0.22μF      | 50    | .424              | .25     | .144    | .10     |
| 651567                                   | 0.47μF      | 50    | .347              | .205    | .118    | .082    |
| 651575                                   | 1μF         | 50    | .27               | .159    | .092    | .064    |
| 651583                                   | 2.2μF       | 25    | .385              | .228    | .131    | .091    |
| 651591                                   | 4.7μF       | 16    | .62               | .364    | .21     | .146    |
| 651604                                   | 10μF        | 10    | .77               | .455    | .263    | .182    |

### SMT Case Dimensions (mm)

|   | 0402 | 0603 | 0805  | 1206 | 1210 |
|---|------|------|-------|------|------|
| L | 1.0  | 1.6  | 2.0   | 3.2  | 3.2  |
| W | 0.5  | 0.81 | 1.25  | 1.6  | 2.5  |
| T | 1.02 | 1.02 | 0.065 | 1.55 | 1.02 |
| t | 0.25 | 0.35 | 0.25  | 0.5  | 0.5  |

### Y5V Series (+80%, -20%) (Continued)

| 1210 SMT                                 |             |       | Pricing per each* |        |        |         |
|--|-------------|-------|-------------------|--------|--------|---------|
| Part No.                                 | Capacitance | Volt. | 10                | 100    | 500    | 1000    |
| <b>Other Manufacturers — Great Deals</b> |             |       |                   |        |        |         |
| 651815                                   | 10μF        | 16    | \$2.08            | \$1.23 | \$ .71 | \$ .491 |
| 651823                                   | 22μF        | 10    | 2.09              | 1.05   | 1.04   | .72     |

### Y5V Series (±20%)

| 0603 SMT                                 |             |       | Pricing per each* |         |         |         |
|--|-------------|-------|-------------------|---------|---------|---------|
| Part No.                                 | Capacitance | Volt. | 10                | 100     | 500     | 1000    |
| <b>Other Manufacturers — Great Deals</b> |             |       |                   |         |         |         |
| 649782                                   | 0.01μF      | 50    | \$ .063           | \$ .046 | \$ .026 | \$ .018 |
| 649838                                   | 0.1μF       | 25    | .077              | .046    | .018    | .026    |
| 649846                                   | 0.15μF      | 25    | .154              | .091    | .053    | .036    |
| 649854                                   | 0.22μF      | 25    | .077              | .046    | .026    | .018    |
| 649791                                   | 0.22μF      | 50    | .077              | .046    | .026    | .018    |
| 649862                                   | 0.33μF      | 25    | .154              | .091    | .053    | .036    |
| 649803                                   | 0.33μF      | 50    | .077              | .046    | .026    | .018    |
| 649871                                   | 0.47μF      | 16    | .077              | .046    | .026    | .018    |
| 649811                                   | 0.47μF      | 50    | .077              | .046    | .026    | .018    |
| 649820                                   | 0.68μF      | 50    | .077              | .046    | .026    | .018    |
| 649897                                   | 1μF         | 10    | .077              | .042    | .026    | .018    |
| 649889                                   | 1μF         | 16    | .077              | .046    | .026    | .018    |

### X5V Series (+80%, -20%)

| JAMECO ValuePro 0402 SMT |             |       | Pricing per each* |         |         |         |
|--------------------------|-------------|-------|-------------------|---------|---------|---------|
| Part No.                 | Capacitance | Volt. | 10                | 100     | 500     | 1000    |
| 543777                   | 0.1μF       | 16    | \$ .163           | \$ .104 | \$ .099 | \$ .099 |

### Z5U Series (±20%)

| JAMECO ValuePro 1206 SMT |             |         | Pricing per each* |         |         |         |
|--------------------------|-------------|---------|-------------------|---------|---------|---------|
| Part No.                 | Capacitance | Voltage | 100               | 500     | 1000    | 5000    |
| 871185                   | .1μF        | 50      | \$ .05            | \$ .045 | \$ .036 | \$ .027 |
| 872222                   | .47μF       | 50      | .225              | .198    | .171    | .153    |

\* Prepackaged: please order in quantity increments shown

## Panasonic® ZNR Transient/Surge Absorbers (Type D)

- Large withstanding surge current capability in compact sizes
- Large "Energy Handling Capability" absorbing transient overvoltages in compact sizes

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NEW

\* Prepackaged: please order in increments of 5

| Part No. | Product No. | Varistor<br>Volt. (V) | Max. Allowable<br>Volt. (V) |     | Clamping Volt.<br>@ 8/20µs |        | Max. Energy<br>(Joule) |       | Max. Peak Current<br>@ 8/20µs (A) |         | Pricing |        |         |
|----------|-------------|-----------------------|-----------------------------|-----|----------------------------|--------|------------------------|-------|-----------------------------------|---------|---------|--------|---------|
|          |             |                       | Acrms                       | DC  | Max. (V)                   | Ip (A) | 10/100µs               | 2ms   | 1 time                            | 2 times | 1       | 5      | 50      |
| 864968   | ERZ-V05D220 | 22 (20-24)            | 14                          | 18  | 48                         | 1      | 0.7                    | 0.5   | 250                               | 125     | *       | \$ .20 | \$ .171 |
| 864976   | ERZ-V05D270 | 27 (24-30)            | 17                          | 22  | 60                         | 1      | 0.9                    | 0.7   | 250                               | 125     | *       | .20    | .171    |
| 864984   | ERZ-V05D390 | 39 (35-43)            | 25                          | 31  | 86                         | 1      | 1.2                    | 0.9   | 250                               | 125     | *       | .20    | .171    |
| 864992   | ERZ-V05D560 | 56 (50-62)            | 35                          | 45  | 123                        | 1      | 1.8                    | 1.3   | 250                               | 125     | *       | .20    | .171    |
| 865004   | ERZ-V05D680 | 68 (61-75)            | 40                          | 56  | 150                        | 1      | 2.2                    | 1.6   | 250                               | 125     | *       | .20    | .171    |
| 865012   | ERZ-V07D201 | 200 (185-225)         | 130                         | 170 | 340                        | 10     | 17.5                   | 12.15 | 1750                              | 1250    | *       | .228   | .19     |
| 865021   | ERZ-V07D220 | 22 (20-24)            | 14                          | 18  | 4.3                        | 2.5    | 1.3                    | 1.1   | 500                               | 250     | *       | .228   | .19     |
| 865039   | ERZ-V07D330 | 33 (30-36)            | 20                          | 26  | 65                         | 2.5    | 2                      | 1.6   | 500                               | 250     | *       | .228   | .19     |
| 922718   | ERZ-V07D390 | 39 (35-43)            | 25                          | 31  | 77                         | 2.5    | 2.4                    | 1.9   | 500                               | 250     | *       | .228   | .19     |
| 865047   | ERZ-V07D431 | 430 (387-473)         | 275                         | 350 | 710                        | 10     | 40                     | 27.5  | 1750                              | 1250    | *       | .228   | .19     |
| 865055   | ERZ-V07D470 | 47 (42-52)            | 30                          | 38  | 93                         | 2.5    | 2.8                    | 2.3   | 500                               | 250     | *       | .228   | .19     |
| 865063   | ERZ-V07D471 | 470 (459-561)         | 320                         | 410 | 845                        | 10     | 45                     | 32    | 1750                              | 1250    | *       | .228   | .19     |
| 865071   | ERZ-V07D560 | 56 (50-62)            | 35                          | 45  | 110                        | 2.5    | 3.4                    | 2.7   | 500                               | 250     | *       | .228   | .19     |
| 865080   | ERZ-V07D820 | 82 (74-90)            | 50                          | 65  | 135                        | 10     | 7                      | 5     | 1750                              | 1250    | *       | .228   | .19     |
| 922742   | ERZ-V10D431 | 430 (387-473)         | 275                         | 350 | 710                        | 25     | 80                     | 55    | 3500                              | 2500    | *       | .299   | .249    |
| 922777   | ERZ-V14D101 | 100 (90-110)          | 60                          | 85  | 165                        | 50     | 35                     | 25    | 6000                              | 5000    | *       | .399   | .335    |
| 922806   | ERZ-V14D241 | 240 (216-264)         | 150                         | 200 | 385                        | 50     | 84                     | 60    | 6000                              | 5000    | *       | .399   | .335    |
| 922831   | ERZ-V14D431 | 430 (387-473)         | 275                         | 350 | 710                        | 50     | 155                    | 110   | 6000                              | 4500    | .55     | .487   | .405    |

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product

♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Jameco ValuePro

## 8mm (.315") Thru-Hole Ceramic Trimmer Capacitors

- Working voltage: 250VDC
- Withstand voltage: 550VDC
- Turning torque: 40-200 g-cm
- Operating temperature range: -55°C~+85°C
- Insulation resistance: 10MΩ minimum @ 250VDC
- Q Factor @ 1MHz:



134818

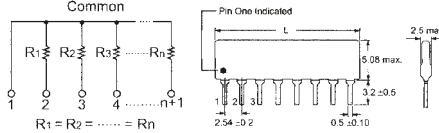
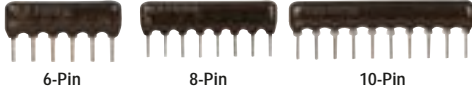
| Part No. | Capacitance Range (pF) | Color Codes | Pricing |       |       |       |
|----------|------------------------|-------------|---------|-------|-------|-------|
|          |                        |             | 1       | 10    | 100   | 1000  |
| 134820   | 3.5-13.0               | Ivory       | \$.49   | \$.39 | \$.39 | \$.36 |
| 32838    | 4.0-34.0               | Yellow      | .99     | .84   | .77   | .58   |
| 32855    | 6.0-70.0               | None        | .92     | .78   | .72   | .68   |
| 94449    | 8.5-100                | Purple      | 1.05    | .94   | .81   | .77   |
| 94466    | 8.5-120                | None        | .99     | .79   | .65   | .59   |

Other Manufacturers — Great Deals

|        |          |       |       |       |       |        |
|--------|----------|-------|-------|-------|-------|--------|
| 134818 | 3.5-13.0 | Ivory | \$.62 | \$.55 | \$.45 | \$.335 |
|--------|----------|-------|-------|-------|-------|--------|

Blue Part No. = Limited Quantity Available

## 6, 8, and 10-Pin Bused Single-In-Line "SIP" Resistor Networks (±2%)



- Miniature, high density packaging
- Operating temperature range: -55°C to +125°C
- Temperature coefficient range: ±100ppm/°C: 50Ω - 1.0MΩ; ±250ppm/°C: <50Ω or >1.0M
- Rating ambient temperature: +70°C
- Wattage/element: 1/8 watt
- Max. working voltage: 100V
- Prepackaged: please order in increments of 10

| Series    | 4606X       | 4608X       | 4610X       |
|-----------|-------------|-------------|-------------|
| Part No.  | 4606X-1-xxx | 4608X-1-xxx | 4610X-1-xxx |
| Pins      | 6-Pin       | 8-Pin       | 10-Pin      |
| 10 pcs.   | \$.14       | \$.19       | \$.23       |
| 100 pcs.  | \$.085      | \$.122      | \$.16       |
| 500 pcs.  | \$.076      | \$.114      | \$.14       |
| 1000 pcs. | \$.071      | \$.105      | \$.13       |

|   |  |  |   |   |  |   |
|---|--|--|---|---|--|---|
| To order, replace "xxx" in the Part No. with the value to the right (e.g. -4608X-1-512 for a 5.1kΩ 8-pin device). | 10Ω — 100<br>22Ω — 220<br>27Ω — 270<br>33Ω — 330<br>39Ω — 390<br>47Ω — 470<br>51Ω — 510<br>56Ω — 560<br>68Ω — 680<br>82Ω — 820<br>100Ω — 101 | 120Ω — 121<br>150Ω — 151<br>180Ω — 181<br>220Ω — 221<br>270Ω — 271<br>330Ω — 331<br>390Ω — 391<br>470Ω — 471<br>510Ω — 511<br>560Ω — 561<br>820Ω — 821 | 1kΩ — 102<br>1.2kΩ — 122<br>1.5kΩ — 152<br>1.8kΩ — 182<br>2.0kΩ — 202<br>2.2kΩ — 222<br>2.7kΩ — 272<br>3.3kΩ — 332<br>3.9kΩ — 392<br>4.7kΩ — 472<br>5.1kΩ — 512 | 5.6kΩ — 562<br>6.8kΩ — 682<br>8.2kΩ — 822<br>10kΩ — 103<br>12kΩ — 123<br>15kΩ — 153<br>18kΩ — 183<br>20kΩ — 203<br>22kΩ — 223<br>27kΩ — 273<br>33kΩ — 333 | 39kΩ — 393<br>47kΩ — 473<br>56kΩ — 563<br>68kΩ — 683<br>82kΩ — 823<br>100kΩ — 104<br>120kΩ — 124<br>150kΩ — 154<br>180kΩ — 184<br>220kΩ — 224<br>270kΩ — 274 | 330kΩ — 334<br>390kΩ — 394<br>470kΩ — 474<br>560kΩ — 564<br>680kΩ — 684<br>820kΩ — 824<br>1MΩ — 105 |
|---|--|--|---|---|--|---|

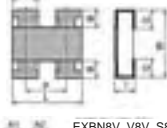
Panasonic

## Surface Mount Chip Resistor Array

- High density
- Improvement of placement efficiency
- 2 resistors in 1mm x 1mm (EXB24V)
- 4 resistors in 2mm x 1mm (EXB28V)
- 8 resistors in 3.8mm x 1.6mm (EXB28HV)
- 4 resistors in 3.2mm x 1.6mm (EXB38V, V8V)
- Prepackaged: please order in increments of 5

NEW

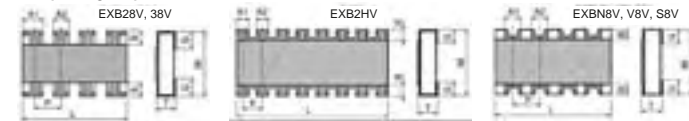
EXB14V, 24V, 34V



EXB28V, 38V

EXB28HV

EXB38V, V8V, S8V



| Part No. | Product No.  | Case Type | No. of Resistors | Value (Ω) | Tolerance | Pricing |        |
|----------|--------------|-----------|------------------|-----------|-----------|---------|--------|
|          |              |           |                  |           |           | 5       | 50     |
| 865135   | EXB-24V3R0JX | 0402      | 2                | 3         | 5%        | \$.097  | \$.084 |
| 865119   | EXB-24V100JX | 0402      | 2                | 10        | 5%        | .097    | .084   |
| 865127   | EXB-24V103JX | 0402      | 2                | 10k       | 5%        | .097    | .084   |
| 865258   | EXB-28V8000X | 0402      | 4                | 0         | 0%        | .097    | .084   |
| 865143   | EXB-28V100JX | 0402      | 4                | 10        | 5%        | .097    | .084   |
| 865207   | EXB-28V220JX | 0402      | 4                | 22        | 5%        | .097    | .084   |
| 865215   | EXB-28V240JX | 0402      | 4                | 24        | 5%        | .097    | .084   |
| 922890   | EXB-28V330JX | 0402      | 4                | 33        | 5%        | .097    | .084   |
| 865231   | EXB-28V390JX | 0402      | 4                | 39        | 5%        | .097    | .084   |
| 865240   | EXB-28V470JX | 0402      | 4                | 47        | 5%        | .097    | .084   |
| 922953   | EXB-28V560JX | 0402      | 4                | 56        | 5%        | .097    | .084   |
| 865151   | EXB-28V101JX | 0402      | 4                | 100       | 5%        | .097    | .084   |
| 865223   | EXB-28V331JX | 0402      | 4                | 330       | 5%        | .097    | .084   |
| 865160   | EXB-28V102JX | 0402      | 4                | 1k        | 5%        | .097    | .084   |
| 865186   | EXB-28V152JX | 0402      | 4                | 1.5k      | 5%        | .097    | .084   |
| 922929   | EXB-28V472JX | 0402      | 4                | 4.7k      | 5%        | .097    | .084   |
| 922865   | EXB-28V103JX | 0402      | 4                | 10k       | 5%        | .097    | .084   |
| 865194   | EXB-28V203JX | 0402      | 4                | 20k       | 5%        | .097    | .084   |

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product

♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

Color Code Legend  
New Sale Lower\$ QtySave

## 0805 Resistor Assortment (±5%)

144 Values, 50 pcs. each; 7,200 pcs. Total

| Resistance Value Chart: |    |     |      |      |     |      |      |      |  |  |  |  |  |  |  |
|-------------------------|----|-----|------|------|-----|------|------|------|--|--|--|--|--|--|--|
| 1.2                     | 10 | 75  | 430  | 2.0k | 10k | 51k  | 270k | 2.2M |  |  |  |  |  |  |  |
| 1.6                     | 16 | 85  | 470  | 2.2k | 11k | 56k  | 300k | 2.4M |  |  |  |  |  |  |  |
| 2.2                     | 18 | 91  | 510  | 2.4k | 12k | 62k  | 360k | 2.7M |  |  |  |  |  |  |  |
| 2.4                     | 20 | 110 | 560  | 2.7k | 13k | 68k  | 390k | 3.0M |  |  |  |  |  |  |  |
| 2.7                     | 22 | 120 | 620  | 3.0k | 15k | 75k  | 430k | 3.3M |  |  |  |  |  |  |  |
| 3.0                     | 24 | 130 | 680  | 3.3k | 16k | 82k  | 470k | 3.6M |  |  |  |  |  |  |  |
| 3.3                     | 27 | 150 | 750  | 3.6k | 18k | 91k  | 510k | 3.9M |  |  |  |  |  |  |  |
| 4.3                     | 30 | 160 | 820  | 3.9k | 20k | 100k | 560k | 4.3M |  |  |  |  |  |  |  |
| 4.7                     | 33 | 180 | 910  | 4.3k | 22k | 110k | 620k | 4.7M |  |  |  |  |  |  |  |
| 5.1                     | 39 | 200 | 1.0k | 4.7k | 24k | 120k | 750k | 5.1M |  |  |  |  |  |  |  |
| 5.6                     | 43 | 220 | 1.1k | 5.6k | 27k | 150k | 820k | 5.6M |  |  |  |  |  |  |  |
| 6.2                     | 47 | 240 | 1.2k | 6.2k | 30k | 160k | 910k | 6.8M |  |  |  |  |  |  |  |
| 6.8                     | 51 | 270 | 1.3k | 6.8k | 33k | 180k | 1.0M | 7.5M |  |  |  |  |  |  |  |
| 7.5                     | 56 | 300 | 1.5k | 7.5k | 36k | 200k | 1.6M | 8.2M |  |  |  |  |  |  |  |
| 8.2                     | 62 | 360 | 1.6k | 8.2k | 39k | 220k | 1.8M | 9.1M |  |  |  |  |  |  |  |
| 9.1                     | 68 | 390 | 1.8k | 9.1k | 43k | 240k | 2.0M | 10M  |  |  |  |  |  |  |  |

- Size (mm): 2.0L x 1.25W x 0.5Thick
- Max. overload voltage: 200V
- 1/8 watts
- Case size (2 cases): 10.5"L x 6.7"W x 1.7"H
- Operating temp.: -50°C to 120°C
- Weight: 1.9 lbs.

Includes: Case with labels

| Part No. | Cross Ref. No. | 1       | 10      | 25      |
|----------|----------------|---------|---------|---------|
| 172806   | 16-500         | \$79.95 | \$71.95 | \$64.79 |

## 1206 Resistor Assortment (±1%)

56 Values, 200 pcs. each; 11,200 pcs. Total

| Value Chart (Ohms) |       |       |       |  |  |  |  |
|--------------------|-------|-------|-------|--|--|--|--|
| 10                 | 200   | 3.92k | 75k   |  |  |  |  |
| 12.1               | 243   | 4.99k | 90.9k |  |  |  |  |
| 15                 | 301   | 6.19k | 100k  |  |  |  |  |
| 20                 | 392   | 7.5k  | 121k  |  |  |  |  |
| 24.3               | 499   | 9.09k | 150k  |  |  |  |  |
| 30.1               | 619   | 10k   | 200k  |  |  |  |  |
| 39.2               | 750   | 12.1k | 243k  |  |  |  |  |
| 49.9               | 909   | 15k   | 301k  |  |  |  |  |
| 61.9               | 1k    | 20k   | 392k  |  |  |  |  |
| 75                 | 1.21k | 24.3k | 499k  |  |  |  |  |
| 90.9               | 1.5k  | 30.1k | 619k  |  |  |  |  |
| 100                | 2k    | 39.2k | 750k  |  |  |  |  |
| 121                | 2.43k | 49.9k | 909k  |  |  |  |  |
| 150                | 3.01k | 61.9k | 1M    |  |  |  |  |

Packaged in strips of 200 pcs. each

- Max. working voltage: 200V
- Power: 1/8W
- Operating temperature: -55°C to +125°C
- Temp. coefficient: ±100 ppm/°C
- Resistor dimensions (mm): 3.10L x 1.5 W x 0.55H

| Part No. | Cross Ref. No. | 1       | 10      | 25      |
|----------|----------------|---------|---------|---------|
| 156882   | SMR1206SB      | \$99.99 | \$89.99 | \$79.99 |

For more Panasonic SMT Chip Resistors visit [www.jameco.com](http://www.jameco.com)

## Improvement of placement efficiency

| Type                  | Dimensions in mm |     |      |      |      |      |        |
|-----------------------|------------------|-----|------|------|------|------|--------|
|                       | L                | W   | T    | A1   | A2   | B    | P      |
| Convex Terminal Type  |                  |     |      |      |      |      |        |
| EXB24V (0402 x 2)     | 1.0              | 1.0 | 0.35 | 0.40 | —    | 0.18 | (0.65) |
| EXB28V (0402 x 4)     | 2.0              | 1.0 | 0.35 | 0.45 | 0.35 | 0.20 | (0.50) |
| EXB28HV (0402 x 8)    | 3.8              | 1.6 | 0.45 | 0.35 | 0.35 | 0.30 | (0.50) |
| EXB38V (0603 x 4)     | 3.2              | 1.6 | 0.50 | 0.65 | 0.45 | 0.30 | (0.80) |
| Concave Terminal Type |                  |     |      |      |      |      |        |
| EXBN8V (0402 x 4)     | 2.0              | 1.0 | 0.45 | 0.30 | 0.30 | 0.20 | (0.50) |
| EXBV8V (0603 x 4)     | 3.2              | 1.6 | 0.60 | 0.60 | 0.60 | 0.30 | (0.80) |

| Part No. | Product No.  | Case Type | No. of Resistors | Value (Ω) | Tolerance | Pricing |        |
|----------|--------------|-----------|------------------|-----------|-----------|---------|--------|
|          |              |           |                  |           |           | 5       | 50     |
| 865178   | EXB-28V104JX | 0402      | 4                | 100k      | 5%        | \$.097  | \$.084 |
| 923059   | EXB-2HVR000V | 0402      | 8                | 0         | 0%        | .174    | .152   |
| 923016   | EXB-2HV220JV | 0402      | 8                | 22        | 5%        | .174    | .152   |
| 923032   | EXB-2HV330JV | 0402      | 8                | 33        | 5%        | .174    | .152   |
| 922970   | EXB-2HV101JV | 0402      | 8                | 100       | 5%        | .174    | .152   |
| 922996   | EXB-2HV103JV | 0402      | 8                | 10k       | 5%        | .174    | .152   |
| 923091   | EXB-38V220JV | 0603      | 4                | 22        | 5%        | .03     | .026   |
| 865291   | EXB-38V330JV | 0603      | 4                | 33        | 5%        | .03     | .026   |
| 865303   | EXB-38V390JV | 0603      | 4                | 39        | 5%        | .03     | .026   |
| 865311   | EXB-38V510JV | 0603      | 4                | 51        | 5%        | .03     | .026   |
| 865320   | EXB-38V560JV | 0603      | 4                | 56        | 5%        | .03     | .026   |
| 865266   | EXB-38V102JV | 0603      | 4                | 1k        | 5%        | .03     | .026   |
| 865282   | EXB-38V222JV | 0603      | 4                | 2.2k      | 5%        | .03     | .026   |
| 923075   | EXB-38V103JV | 0603      | 4                | 10k       | 5%        | .03     | .026   |
| 865274   | EXB-38V221JV | 0603      | 4                | 22k       | 5%        | .03     | .026   |
| 923171   | EXB-V8V330JV | 0603      | 4                | 33        | 5%        | .077    | .067   |
| 923198   | EXB-V8V472JV | 0603      | 4                | 4.7k      | 5%        | .077    | .067   |
| 923155   | EXB-V8V103JV | 0603      | 4                | 10k       | 5%        | .077    | .067   |



## 1/4-Watt Carbon Film Resistors (±5%)



## Single Value Resistor Pricing: 1/4-Watt Carbon Film Resistors (±5%)

To order: Use part number adjacent to ohms in chart below.  
 Values may not be combined for quantity price breaks.

| Pricing Per Unit (Please order in increments of 100) |       |        |        |        |
|--|-------|--------|--------|--------|
| Specify Part No. & Resistor Value                    | 100   | 500    | 1000   | 2000   |
| (see Standard Resistor Values Chart below)           | \$.01 | \$.009 | \$.008 | \$.007 |

## Assortment Pricing: 1/4-Watt Carbon Film Resistors (±5%)

Assortments may not be combined for quantity price breaks

| Part No. | Description (Including bulk pack values)                                  | 1      | 10     | 25     |
|----------|---|--------|--------|--------|
| 10720    | 5 ea. 70 values (every other value from 10Ω - 5.6 MΩ) (350 pcs.)          | \$9.95 | \$8.95 | \$7.95 |
| 103166   | 10 ea. 24 values marked (●) & 50 ea. 6 values marked (✱) (540 pcs.)       | 12.95  | 11.49  | 9.95   |
| 10664    | 100 ea. 27 values marked (▲) (2,700 pcs.)                                 | 24.95  | 22.49  | 20.49  |
| 10656    | 100 ea. 160 values (all resistor values in the chart below) (16,000 pcs.) | 119.95 | 107.95 | 96.95  |
| 81832    | 1/4-watt resistor component cabinet kit – 30 values (540 pcs.), pg 78     | 27.95  | 24.95  | 22.49  |

Blue Part No. = Limited Quantity Available

\*▲● see above

| Part No. | Ohms | Part No. | Ohms   | Part No. | Ohms   | Part No. | Ohms   | Part No. | Ohms | Part No. | Ohms   | Part No. | Ohms   | Part No. | Ohms |        |        |        |      |        |      |     |
|----------|------|----------|--------|----------|--------|----------|--------|----------|------|----------|--------|----------|--------|----------|------|--------|--------|--------|------|--------|------|-----|
| 690216   | 2.2  | 690427   | 15     | 690620   | ▲✱     | 100      | 690822 | ▲●       | 680  | 691024   | ▲✱     | 4.7k     | 691227 | ▲●       | 33k  | 691420 | 220k   | 691622 | 1.5M |        |      |     |
| 690224   | 2.4  | 690435   | 16     | 690638   |        | 110      | 690831 |          | 750  | 691032   | ▲●     | 5.1k     | 691235 |          | 36k  | 691438 | 240k   | 691631 | 1.6M |        |      |     |
| 690232   | 2.7  | 690443   | 18     | 690646   |        | 120      | 690849 |          | 820  | 691041   | ▲●     | 5.6k     | 691243 |          | 39k  | 691446 | 270k   | 691892 | 1.8M |        |      |     |
| 690241   | 3.0  | 690451   | 20     | 690654   |        | 130      | 690857 |          | 910  | 691059   |        | 6.2k     | 691251 |          | 43k  | 691454 | 300k   | 691649 | 2.0M |        |      |     |
| 690259   | 3.3  | 690460   | 22     | 690662   | ▲●     | 150      | 690865 | ▲✱       | 1.0k | 691067   |        | 6.8k     | 691260 | ▲●       | 47k  | 691462 | 330k   | 691657 | 2.2M |        |      |     |
| 690267   | 3.6  | 690478   | 24     | 690671   |        | 160      | 690873 |          | 1.1k | 691075   |        | 7.5k     | 691278 |          | 51k  | 691471 | 360k   | 691665 | 2.4M |        |      |     |
| 690275   | 3.9  | 690486   | 27     | 690689   |        | 180      | 690881 | ●        | 1.2k | 691083   |        | 8.2k     | 691286 |          | 56k  | 691489 | 390k   | 691673 | 2.7M |        |      |     |
| 690283   | 4.3  | 690494   | 30     | 690697   |        | 200      | 690890 |          | 1.3k | 691091   |        | 9.1k     | 691294 |          | 62k  | 691497 | 430k   | 691681 | 3.0M |        |      |     |
| 690291   | 4.7  | 690507   | 33     | 690700   | ▲✱     | 220      | 690902 | ▲●       | 1.5k | 691104   | ▲✱     | 10k      | 691307 |          | 68k  | 691500 | 470k   | 691690 | 3.3M |        |      |     |
| 690304   | 5.1  | 690515   | 36     | 690718   |        | 240      | 690911 |          | 1.6k | 691112   |        | 11k      | 691315 |          | 75k  | 691518 | 510k   | 691702 | 3.6M |        |      |     |
| 690312   | 5.6  | 690523   | 39     | 690726   | ▲●     | 270      | 690929 |          | 1.8k | 691121   |        | 12k      | 691323 |          | 82k  | 691526 | 560k   | 691711 | 3.9M |        |      |     |
| 690321   | 6.2  | 690531   | 43     | 690734   |        | 300      | 690937 | ▲●       | 2.0k | 691139   |        | 13k      | 691331 |          | 91k  | 691534 | 620k   | 691737 | 4.7M |        |      |     |
| 690339   | 6.8  | 690540   | 47     | 690742   | ▲●     | 330      | 690945 | ▲●       | 2.2k | 691147   | ▲●     | 15k      | 691340 | ▲✱       | 100k | 691542 | 680k   | 691745 | 5.1M |        |      |     |
| 690347   | 7.5  | 690558   | 51     | 690751   |        | 360      | 690953 |          | 2.4k | 691155   |        | 16k      | 691358 |          | 110k | 691551 | 750k   | 691753 | 5.6M |        |      |     |
| 690363   | 8.2  | 690566   | 56     | 690769   | ●      | 390      | 690961 | ▲●       | 2.7k | 691163   |        | 18k      | 691366 |          | 120k | 691569 | 820k   | 691761 | 6.2M |        |      |     |
| 690371   | 9.1  | 690574   | 62     | 690777   |        | 430      | 690970 |          | 3.0k | 691171   | ●      | 20k      | 691374 |          | 130k | 691577 | 910k   | 691770 | 6.8M |        |      |     |
| 690380   | ▲●   | 10       | 690582 | 68       | 690785 | ▲●       | 470    | 690988   | ▲●   | 3.3k     | 691180 | ▲●       | 22k    | 691382   |      | 150k   | 691585 | ▲●     | 1.0M | 691788 | 7.5M |     |
| 690398   |      | 11       | 690591 | 75       | 690793 |          | 510    | 690996   |      | 3.6k     | 691198 |          | 24k    | 691391   |      | 160k   | 691593 |        | 1.1M | 691796 | 8.2M |     |
| 690401   |      | 12       | 690603 | 82       | 690806 |          | 560    | 691008   |      | 3.9k     | 691201 |          | 27k    | 691403   |      | 180k   | 691606 |        | 1.2M | 691809 | 9.1M |     |
| 690419   |      | 13       | 690611 | 91       | 690814 |          | 620    | 691016   |      | 4.3k     | 691219 |          | 30k    | 691411   |      | 200k   | 691614 |        | 1.3M | 691817 | ▲●   | 10M |

## 1/2-Watt Carbon Film Resistors (±5%)



## Single Resistor Value Pricing: 1/2-Watt Carbon Film Resistors (±5%)

To order: Use part number adjacent to ohms in chart below.  
 Values may not be combined for quantity price breaks.

| Pricing Per Unit (Please order in increments of 100) |        |        |        |        |
|--|--------|--------|--------|--------|
| Specify Part No. & Resistor Value                    | 100    | 500    | 1000   | 2000   |
| (see Standard Resistor Values Chart below)           | \$.028 | \$.014 | \$.013 | \$.014 |

## Assortment Pricing: 1/2-Watt Carbon Film Resistors (±5%)

Assortments may not be combined for quantity price breaks

| Part No. | Cross Ref. No. | Values Included | Description (see chart on left)   | Pricing |         |
|----------|----------------|-----------------|---|---------|---------|
|          |                |                 |   | 1       | 10      |
| 107853   | ASST1230       | ✱<br>#          | 10 ea. of 24 values marked by ✱ and 50 ea. of 6 values marked by # (540 pcs.)         | \$14.95 | \$13.49 |
| 107845   | ASST1227       | ✓               | 100 ea. of 27 values marked by ✓ (2,700 pcs.)   | 34.95   | 31.49   |
| 107837   | ASST1270       | —               | 5 ea. of 70 values (every other value from 10Ω - 5.6 MΩ) (350 pcs.) (see chart below) | 10.95   | 9.95    |
| 107879   | CAB12R         | —               | 1/2-watt resistor component cabinet kit – 30 values (540 pcs.), see page 96           | 29.95   | 26.95   |

| Part No. | Ohms  | Part No.  | Ohms  | Part No.  | Ohms  | Part No.  | Ohms   | Part No.  | Ohms   | Part No.  | Ohms   | Part No.  | Ohms   | Part No.  | Ohms   |
|----------|-------|-----------|-------|-----------|-------|-----------|--------|---|--------|-----------|--------|-----------|--------|-----------|--------|
| 659577   | Ⓐ 1.0 | 659796    | Ⓐ 8.2 | 661212    | Ⓐ 62  | 661423 ✓X | Ⓐ 470  | 661642  | Ⓐ 3.6k | 661853 X  | Ⓐ 27k  | 662063    | Ⓐ 200k | 662274    | Ⓐ 1.5M |
| 659585   | Ⓐ 1.1 | 659809    | Ⓐ 9.1 | 661221    | Ⓐ 68  | 661431    | Ⓐ 510  | 661651  | Ⓐ 3.9k | 661861    | Ⓐ 30k  | 662071    | Ⓐ 220k | 662282    | Ⓐ 1.6M |
| 659593   | Ⓐ 1.2 | 659817 ✓X | Ⓐ 10  | 661239    | Ⓐ 75  | 661440    | Ⓐ 560  | 661669  | Ⓐ 4.3k | 661870 ✓X | Ⓐ 33k  | 662080    | Ⓐ 240k | 662291    | Ⓐ 1.8M |
| 659606   | Ⓐ 1.3 | 659825    | Ⓐ 11  | 661247    | Ⓐ 82  | 661458    | Ⓐ 620  | 661677 ✓X   | Ⓐ 4.7k | 661888    | Ⓐ 36k  | 662098    | Ⓐ 270k | 662303    | Ⓐ 2.0M |
| 659614   | Ⓐ 1.5 | 659833    | Ⓐ 12  | 661255    | Ⓐ 91  | 661466 ✓X | Ⓐ 680  | 661685 ✓X   | Ⓐ 5.1k | 661896    | Ⓐ 39k  | 662101    | Ⓐ 300k | 662311    | Ⓐ 2.2M |
| 659622   | Ⓐ 1.6 | 659841    | Ⓐ 13  | 661263 ✓# | Ⓐ 100 | 661474    | Ⓐ 750  | 661693 ✓X   | Ⓐ 5.6k | 661909    | Ⓐ 43k  | 662119    | Ⓐ 330k | 662320    | Ⓐ 2.4M |
| 659631   | Ⓐ 1.8 | 659850    | Ⓐ 15  | 661271    | Ⓐ 110 | 661482    | Ⓐ 820  | 661706  | Ⓐ 6.2k | 661917 ✓X | Ⓐ 47k  | 662127    | Ⓐ 360k | 662338    | Ⓐ 2.7M |
| 659649   | Ⓐ 2.0 | 659868    | Ⓐ 16  | 661280    | Ⓐ 120 | 661491    | Ⓐ 910  | 661714 X  | Ⓐ 6.8k | 661925    | Ⓐ 51k  | 662135    | Ⓐ 390k | 662346    | Ⓐ 3.0M |
| 659657   | Ⓐ 2.2 | 659876    | Ⓐ 18  | 661298    | Ⓐ 130 | 661503 ✓X | Ⓐ 1.0k | 661722  | Ⓐ 7.5k | 661933    | Ⓐ 56k  | 662143    | Ⓐ 430k | 662354    | Ⓐ 3.3M |
| 659665   | Ⓐ 2.4 | 659884    | Ⓐ 20  | 661301 ✓X | Ⓐ 150 | 661511    | Ⓐ 1.1k | 661731  | Ⓐ 8.2k | 661941    | Ⓐ 62k  | 662151 ✓X | Ⓐ 470k | 662362    | Ⓐ 3.6M |
| 659673   | Ⓐ 2.7 | 659892    | Ⓐ 22  | 661319    | Ⓐ 160 | 661520    | Ⓐ 1.2k | 661749  | Ⓐ 9.1k | 661950    | Ⓐ 68k  | 662160    | Ⓐ 510k | 662371    | Ⓐ 3.9M |
| 659681   | Ⓐ 3.0 | 659905    | Ⓐ 24  | 661327    | Ⓐ 180 | 661538    | Ⓐ 1.3k | 661757 ✓X   | Ⓐ 10k  | 661968    | Ⓐ 75k  | 662178    | Ⓐ 560k | 662389    | Ⓐ 4.3M |
| 659690   | Ⓐ 3.3 | 661124    | Ⓐ 27  | 661335    | Ⓐ 200 | 661546 ✓X | Ⓐ 1.5k | 661765  | Ⓐ 11k  | 661976    | Ⓐ 82k  | 662186    | Ⓐ 620k | 662397    | Ⓐ 4.7M |
| 659702   | Ⓐ 3.6 | 661132    | Ⓐ 30  | 661343 ✓# | Ⓐ 220 | 661554    | Ⓐ 1.6k | 661773  | Ⓐ 12k  | 661984    | Ⓐ 91k  | 662194    | Ⓐ 680k | 662400    | Ⓐ 5.1M |
| 659711   | Ⓐ 3.9 | 661141    | Ⓐ 33  | 661351    | Ⓐ 240 | 661562    | Ⓐ 1.8k | 661781  | Ⓐ 13k  | 661992 ✓X | Ⓐ 100k | 662207    | Ⓐ 750k | 662418    | Ⓐ 5.6M |
| 659729   | Ⓐ 4.3 | 661159    | Ⓐ 36  | 661360 ✓X | Ⓐ 270 | 661571 ✓X | Ⓐ 2.0k | 661790 ✓X   | Ⓐ 15k  | 662004    | Ⓐ 110k | 662215    | Ⓐ 820k | 662426    | Ⓐ 6.2M |
| 659737   | Ⓐ 4.7 | 661167    | Ⓐ 39  | 661378    | Ⓐ 300 | 661589 ✓X | Ⓐ 2.2k | 661802  | Ⓐ 16k  | 662012    | Ⓐ 120k | 662223    | Ⓐ 910k | 662434    | Ⓐ 6.8M |
| 659745   | Ⓐ 5.1 | 661175    | Ⓐ 43  | 661386 ✓X | Ⓐ 330 | 661597    | Ⓐ 2.4k | 661811  | Ⓐ 18k  | 662021    | Ⓐ 130k | 662231 ✓X | Ⓐ 1.0M | 662442    | Ⓐ 7.5M |
| 659753   | Ⓐ 5.6 | 661183 ✓X | Ⓐ 47  | 661394    | Ⓐ 360 | 661600 ✓X | Ⓐ 2.7k | 661829  | Ⓐ 20k  | 662039    | Ⓐ 150k | 662240    | Ⓐ 1.1M | 662451    | Ⓐ 8.2M |
| 659761   | Ⓐ 6.2 | 661191    | Ⓐ 51  | 661407 X  | Ⓐ 390 | 661618    | Ⓐ 3.0k | 661837 ✓X   | Ⓐ 22k  | 662047    | Ⓐ 160k | 662258    | Ⓐ 1.2M | 662469    | Ⓐ 9.1M |
| 659770   | Ⓐ 6.8 | 661204    | Ⓐ 56  | 661415    | Ⓐ 430 | 661634 ✓X | Ⓐ 3.3k | 661845  | Ⓐ 24k  | 662055    | Ⓐ 180k | 662266    | Ⓐ 1.3M | 662477 ✓X | Ⓐ 10M  |
| 659788   | Ⓐ 7.5 |           |       |           |       |           |        | (✓), (X), (#) symbols indicate Resistor values included in Assortments above. |        |           |        |           |        |           |        |

(✓), (✱), (#) symbols indicate Resistor values included in Assortments above.

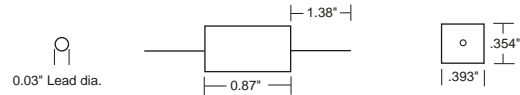
## 5-Watt Wirewound Resistors (5%)

### Single Value Resistor Pricing: 5-Watt Wirewound Resistors (±5%)

To order: Use part number adjacent to ohms in chart below.  
Values may not be combined for quantity price breaks.

| Pricing Per Resistor                       |       |       |        |        |        |
|--|-------|-------|--------|--------|--------|
| Specify Part No. & Resistor Value          | 1     | 10    | 100    | 500    | 1000   |
| (see Standard Resistor Values Chart below) | \$.36 | \$.30 | \$.228 | \$.199 | \$.162 |

- Temp range: -55°C to +155°C
- Moisture resistant
- High temperature stability
- Exceptionally small, sturdy and reliable



## Standard Resistor Values Chart

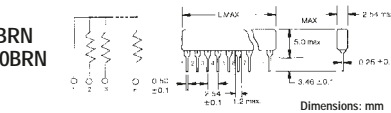
| Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms |
|----------|------|----------|------|----------|------|----------|------|----------|------|----------|------|----------|------|----------|------|
| 659956   | 0.10 | 660092   | 0.68 | 660236   | 2.7  | 660375   | 10   | 660519   | 36   | 660658   | 150  | 660797   | 500  | 660931   | 1.8k |
| 659964   | 0.15 | 660105   | 0.75 | 660244   | 3.0  | 660383   | 11   | 660527   | 39   | 660666   | 160  | 660800   | 510  | 660949   | 2.0k |
| 659972   | 0.20 | 660113   | 0.82 | 660252   | 3.3  | 660391   | 12   | 660535   | 43   | 660674   | 180  | 660818   | 560  | 660957   | 2.2k |
| 659981   | 0.22 | 660121   | 0.91 | 660261   | 3.9  | 660404   | 13   | 660543   | 47   | 660682   | 200  | 660826   | 620  | 660965   | 2.4k |
| 659999   | 0.27 | 660130   | 1.0  | 660279   | 4.0  | 660412   | 15   | 660551   | 50   | 660691   | 220  | 660834   | 680  | 660973   | 2.7k |
| 660009   | 0.30 | 660148   | 1.1  | 660287   | 4.7  | 660421   | 16   | 660560   | 56   | 660703   | 240  | 660842   | 750  | 660981   | 3.0k |
| 660017   | 0.33 | 660156   | 1.2  | 660295   | 5.0  | 660439   | 18   | 660578   | 62   | 660711   | 250  | 660851   | 820  | 660990   | 3.3k |
| 660025   | 0.39 | 660164   | 1.3  | 660308   | 5.1  | 660447   | 20   | 660586   | 68   | 660720   | 270  | 660869   | 910  | 661001   | 3.9k |
| 660033   | 0.43 | 660172   | 1.5  | 660316   | 5.6  | 660455   | 22   | 660594   | 75   | 660738   | 300  | 660877   | 1.0k | 661010   | 4.7k |
| 660041   | 0.47 | 660181   | 1.6  | 660324   | 6.2  | 660463   | 24   | 660607   | 82   | 660746   | 330  | 660885   | 1.1k | 661028   | 5.0k |
| 660050   | 0.50 | 660199   | 1.8  | 660332   | 6.8  | 660471   | 25   | 660615   | 91   | 660754   | 360  | 660893   | 1.2k | 661036   | 10k  |
| 660068   | 0.51 | 660201   | 2.0  | 660341   | 7.5  | 660480   | 27   | 660623   | 100  | 660762   | 390  | 660906   | 1.3k | 661044   | 20k  |
| 660076   | 0.56 | 660210   | 2.2  | 660359   | 8.2  | 660498   | 30   | 660631   | 120  | 660771   | 430  | 660914   | 1.5k | 661052   | 25k  |
| 660084   | 0.62 | 660228   | 2.4  | 660367   | 9.1  | 660501   | 33   | 660640   | 130  | 660789   | 470  | 660922   | 1.6k |          |      |

## Single-In-Line "SIP" Resistor Networks (±2%)

8 and 10-Pin Bused (125mW/Resistor) ±2%

Features (8BRN/10BRN):

- 8-pin package (7 resistors) = 8BRN
- 10-pin package (9 resistors) = 10BRN
- Rated power per resistor at 70°C: 125mW/resistor
- Operating temperature range: -55°C to +125°C
- Resistance temperature coefficient: 200ppm/°C
- Insulation resistance: 10,000MΩ min. at 100V
- Solderability: per MIL-R-83401
- Low profile 5mm (.200" body ht.)
- Low profile is compatible with DIPs
- Cermet thick film construction



| Pricing per each |       |       |       |
|------------------|-------|-------|-------|
| 1                | 10    | 100   | 1000  |
| \$.25            | \$.19 | \$.15 | \$.12 |

| Pricing for P/N 97826 |       |       |       |
|-----------------------|-------|-------|-------|
| 1                     | 10    | 100   | 1000  |
| \$.24                 | \$.18 | \$.14 | \$.11 |

| Part No. | Pins | Ohms |
|----------|------|------|
| 97826    | 8    | 10k  |
| 97851    | 10   | 330  |
| 97869    | 10   | 470  |
| 97877    | 10   | 1.0k |
| 97893    | 10   | 2.2k |
| 24660    | 10   | 4.7k |
| 24643    | 10   | 10k  |
| 98087    | 10   | 47k  |
| 98095    | 10   | 100k |

## Dual-In-Line "DIP" Resistor Networks (±2%)

16-Pin Isolated (140mW/Resistor) ±2%

Features (16IRN):

- Maximum operating voltage: 100V • Tolerance: ±2%
- Temperature coefficient: ±100ppm/°C
- Operating temp.: -55°C to +125°C
- Insulation resistance: 10,000MΩ min.
- Lead solderability/solvent resistance: meets requirements of MIL-R-83401
- Power rating at 70°C: 2.25 watts
- Compatible with automatic insertion equipment
- Copper leads for excellent heat dissipation

| Part No. | Ohms |
|----------|------|
| 164005   | 33   |
| 108556   | 100  |
| 108564   | 220  |
| 108572   | 330  |
| 108581   | 470  |
| 108599   | 1.0k |
| 108610   | 4.7k |
| 108628   | 10k  |
| 108644   | 100k |

| Pricing per each |       |       |       |
|------------------|-------|-------|-------|
| 1                | 10    | 100   | 1000  |
| \$.39            | \$.35 | \$.31 | \$.29 |

## SIP and DIP Resistor Network Cross Reference Chart

| Jameco   | CTS          | A - B | Bourns       | Dale        | Beckman    | Sprague       | MEPCO         |
|----------|--------------|-------|--------------|-------------|------------|---------------|---------------|
| 8BRN...  | 770-81-R...  | 708A  | 4608X-101... | CSC08A01... | L08-1-R... | 356CF... X2PD | 9S08... GL002 |
| 10BRN... | 770-101-R... | 710A  | 4610X-101... | CSC10A01... | L10-1-R... | 256CX... X2PD | 9S10... GL002 |
| 16IRN... | 761-3-R...   | 316B  | 4116R-001... | MDP16-03... | B98-3-R... | 916C... X5SR  | D16H... 12-J  |

## 1/8-Watt Carbon Film Resistor (±5%) Assortments

• 1/8-W - \$12.95/k (bulk)

| Part No. | Cross Ref. No. | Values included | Description (see chart below)   | Pricing |         |
|----------|----------------|-----------------|---|---------|---------|
|          |                |                 |   | 1       | 10      |
| 108303   | ASST1830       | X               | 10 ea. of 24 values marked by X and 50 ea. of 6 values marked below by # (540 pcs.) | \$12.95 | \$11.49 |
| 108290   | ASST1827       | ✓               | 100 ea. of 27 values marked by ✓ (2,700 pcs.)                                       | 29.95   | 26.95   |
| 108329   | CAB182R        | —               | 1/8-watt resistor component cabinet kit - 30 values (540 pcs.), see page 96         | 24.95   | 22.49   |

## 1/8-Watt Resistor Assortments Value Chart (Ohms)

|        |        |        |         |         |         |         |        |         |         |
|--------|--------|--------|---------|---------|---------|---------|--------|---------|---------|
| 10 ✓X  | 150 ✓X | 330 ✓X | 680 ✓X  | 2.0k ✓X | 3.3k ✓X | 5.6k ✓X | 15k ✓X | 33k ✓X  | 470k ✓X |
| 47 ✓X  | 220 ✓# | 390 X  | 1.0k ✓# | 2.2k ✓X | 4.7k ✓# | 6.8k X  | 22k ✓X | 47k ✓X  | 1.0M ✓X |
| 100 ✓# | 270 ✓X | 470 ✓X | 1.5k ✓X | 2.7k ✓X | 5.1k ✓X | 10k ✓#  | 27k X  | 100k ✓# | 10M ✓X  |

(✓), (X), (#) symbols indicate Resistor values included in Assortments above.

## 1/4-Watt & 1/2-Watt Resistor

### Lead Forming Tool

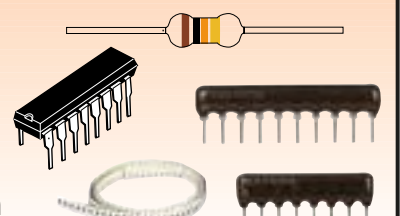
- Watt size indicates appropriate package size
- Bends lead length in .05" increments
- Excellent for capacitors also
- Lead spacing: 1/4W: 0.4"-1.5"; 1/2W: 0.5"-1.5"
- Size: 5.4"L x 1.5"W



| Part No. | Description | 1      | 10     | 50     |
|----------|-------------|--------|--------|--------|
| 106884   | 1/4W & 1/2W | \$2.79 | \$2.65 | \$2.52 |

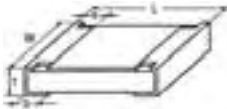
Many more resistor products are available on our website

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NEW



## 1% Single Value Resistor Pricing

To order: Use part number adjacent to ohms in chart below.  
Values may not be combined for quantity price breaks.

| Pricing Per Unit (Please order in increments of 10) |         |        |         |         |
|---|---------|--------|---------|---------|
| Specify Part No. & Resistor Value                   | 10      | 100    | 500     | 1000    |
| 0402 (Resistor Values Chart)                        | \$ .095 | \$ .05 | \$ .029 | \$ .019 |
| 1206 (Resistor Values Chart)                        | .11     | .06    | .034    | .023    |
| 0603 (Resistor Values Chart)                        | .085    | .045   | .026    | .017    |
| 0805 (Resistor Values Chart)                        | .086    | .046   | .027    | .018    |

### Case Size 0402 (ERJ-2RKFxxxx Series)

| Part No. | Ohms                           | Part No. | Ohms                            |
|----------|--------------------------------|----------|---------------------------------|
| 862188   | 10 $\text{R} \blacktriangle$   | 862153   | 4.99k $\text{R} \blacktriangle$ |
| 862276   | 49.9 $\text{R} \blacktriangle$ | 862090   | 10k $\text{R} \blacktriangle$   |
| 920940   | 100 $\text{R} \blacktriangle$  | 862217   | 33.2k $\text{R} \blacktriangle$ |
| 862305   | 750 $\text{R} \blacktriangle$  | 862129   | 100k $\text{R} \blacktriangle$  |
| 921002   | 1k $\text{R} \blacktriangle$   | 862153   | 1M $\text{R} \blacktriangle$    |

### Case Size 1206 (ERJ-8ENFxxxx Series)

| Part No. | Ohms                           | Part No. | Ohms                            |
|----------|--------------------------------|----------|---------------------------------|
| 864749   | 10 $\text{R} \blacktriangle$   | 864731   | 1k $\text{R} \blacktriangle$    |
| 864765   | 15 $\text{R} \blacktriangle$   | 864773   | 1.96k $\text{R} \blacktriangle$ |
| 864790   | 49.9 $\text{R} \blacktriangle$ | 864781   | 2.21k $\text{R} \blacktriangle$ |
| 864757   | 124 $\text{R} \blacktriangle$  | 864802   | 6.34k $\text{R} \blacktriangle$ |
| 864811   | 681 $\text{R} \blacktriangle$  | 922582   | 10k $\text{R} \blacktriangle$   |

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## 5% Single Value Resistor Pricing

To order: Use part number adjacent to ohms in chart below.  
Values may not be combined for quantity price breaks.

| Pricing Per Unit (Please order in increments of 10) |         |         |         |         |
|---|---------|---------|---------|---------|
| Specify Part No. & Resistor Value                   | 10      | 100     | 500     | 1000    |
| 0402 (Resistor Values Chart)                        | \$ .079 | \$ .042 | \$ .024 | \$ .016 |
| 1216 (Resistor Values Chart)                        | .089    | .048    | .027    | .018    |
| 0603 (Resistor Values Chart)                        | .076    | .04     | .023    | .015    |
| 0805 (Resistor Values Chart)                        | .073    | .039    | .022    | .015    |

### Case Size 0402 (ERJ-2GEJ Series)

| Part No. | Ohms                          | Part No. | Ohms                           |
|----------|-------------------------------|----------|--------------------------------|
| 920827   | 0 $\text{R} \blacktriangle$   | 862065   | 680 $\text{R} \blacktriangle$  |
| 861901   | 1 $\text{R} \blacktriangle$   | 861943   | 2.7k $\text{R} \blacktriangle$ |
| 862031   | 5.1 $\text{R} \blacktriangle$ | 862006   | 4.7k $\text{R} \blacktriangle$ |
| 861775   | 10 $\text{R} \blacktriangle$  | 920886   | 10k $\text{R} \blacktriangle$  |
| 920915   | 33 $\text{R} \blacktriangle$  | 861791   | 100k $\text{R} \blacktriangle$ |
| 920851   | 100 $\text{R} \blacktriangle$ | 861812   | 1M $\text{R} \blacktriangle$   |
| 861871   | 150 $\text{R} \blacktriangle$ | 861847   | 10M $\text{R} \blacktriangle$  |
| 861978   | 430 $\text{R} \blacktriangle$ |          |                                |

### Case Size 1206 (ERJ-8GEY Series)

| Part No. | Ohms                          | Part No. | Ohms                           |
|----------|-------------------------------|----------|--------------------------------|
| 922611   | 0 $\text{R} \blacktriangle$   | 864845   | 1k $\text{R} \blacktriangle$   |
| 864888   | 1 $\text{R} \blacktriangle$   | 864909   | 3k $\text{R} \blacktriangle$   |
| 864933   | 3 $\text{R} \blacktriangle$   | 864925   | 3.3k $\text{R} \blacktriangle$ |
| 864829   | 10 $\text{R} \blacktriangle$  | 922654   | 4.7k $\text{R} \blacktriangle$ |
| 864837   | 100 $\text{R} \blacktriangle$ | 864870   | 18k $\text{R} \blacktriangle$  |
| 864896   | 270 $\text{R} \blacktriangle$ | 864853   | 100k $\text{R} \blacktriangle$ |
| 864917   | 330 $\text{R} \blacktriangle$ | 864861   | 10M $\text{R} \blacktriangle$  |

⬆ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

⬆ RoHS compliant product

⬆ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.

## 1% Precision Thick Film Resistors

| Case Size | Power Rating @ 70°C | Max. RCWW | Max. Overload Voltage | Dimensions (mm) |      |     |      |      | Temperature Coefficient          | Panasonic Series No. |
|-----------|---------------------|-----------|-----------------------|-----------------|------|-----|------|------|----------------------------------|----------------------|
|           |                     |           |                       | L               | W    | a   | b    | t    |                                  |                      |
| 0402      | 1/16W               | 50V       | 100V                  | 1               | 0.5  | 0.2 | 0.25 | 0.35 | 10 - 1M $\Omega$ $\pm$ 100ppm/°C | ERJ-2RKFxxxxX        |
| 0603      | 1/16W - (1/10W)     | 50V       | 100V                  | 1.6             | 0.8  | 0.3 | 0.3  | 0.45 | 10 - 1M $\Omega$ $\pm$ 100ppm/°C | ERJ-3EKFxxxxV        |
| 0805      | 1/10W - (1/8W)      | 150V      | 200V                  | 2               | 1.25 | 0.4 | 0.4  | 0.6  | 10 - 2.2M $\pm$ 100ppm/°C        | ERJ-6ENFxxxxV        |
| 1206      | 1/8W - (1/4W)       | 200V      | 400V                  | 3.2             | 1.6  | 0.5 | 0.5  | 0.6  | 10 - 2.2M $\pm$ 100ppm/°C        | ERJ-8ENFxxxxV        |

### Case Size 0603 (ERJ-3EKFxxxx Series)

| Part No. | Ohms                           | Part No. | Ohms                            | Part No. | Ohms                            | Part No. | Ohms                            |
|----------|--------------------------------|----------|---------------------------------|----------|---------------------------------|----------|---------------------------------|
| 921184   | 10 $\text{R} \blacktriangle$   | 863666   | 464 $\text{R} \blacktriangle$   | 863842   | 5.23k $\text{R} \blacktriangle$ | 863738   | 47k $\text{R} \blacktriangle$   |
| 862840   | 22.1 $\text{R} \blacktriangle$ | 863691   | 470 $\text{R} \blacktriangle$   | 863973   | 5.76k $\text{R} \blacktriangle$ | 921483   | 47.5k $\text{R} \blacktriangle$ |
| 863287   | 30.1 $\text{R} \blacktriangle$ | 863771   | 499 $\text{R} \blacktriangle$   | 864010   | 7.15k $\text{R} \blacktriangle$ | 921512   | 49.9k $\text{R} \blacktriangle$ |
| 863501   | 37.4 $\text{R} \blacktriangle$ | 863990   | 619 $\text{R} \blacktriangle$   | 864036   | 7.5k $\text{R} \blacktriangle$  | 863922   | 56.2k $\text{R} \blacktriangle$ |
| 921547   | 49.9 $\text{R} \blacktriangle$ | 921096   | 1k $\text{R} \blacktriangle$    | 921125   | 10k $\text{R} \blacktriangle$   | 864028   | 71.5k $\text{R} \blacktriangle$ |
| 863893   | 54.9 $\text{R} \blacktriangle$ | 862410   | 1.1k $\text{R} \blacktriangle$  | 862381   | 10.2k $\text{R} \blacktriangle$ | 864052   | 97.6k $\text{R} \blacktriangle$ |
| 921571   | 75 $\text{R} \blacktriangle$   | 862663   | 1.87k $\text{R} \blacktriangle$ | 862487   | 13.3k $\text{R} \blacktriangle$ | 921150   | 100k $\text{R} \blacktriangle$  |
| 864044   | 90.9 $\text{R} \blacktriangle$ | 921272   | 2k $\text{R} \blacktriangle$    | 921248   | 15k $\text{R} \blacktriangle$   | 862452   | 110k $\text{R} \blacktriangle$  |
| 921037   | 100 $\text{R} \blacktriangle$  | 862962   | 2.43k $\text{R} \blacktriangle$ | 862559   | 15.4k $\text{R} \blacktriangle$ | 862698   | 187k $\text{R} \blacktriangle$  |
| 921213   | 150 $\text{R} \blacktriangle$  | 863041   | 2.49k $\text{R} \blacktriangle$ | 862583   | 17.4k $\text{R} \blacktriangle$ | 863113   | 249k $\text{R} \blacktriangle$  |
| 862532   | 154 $\text{R} \blacktriangle$  | 863172   | 2.94k $\text{R} \blacktriangle$ | 921301   | 20k $\text{R} \blacktriangle$   | 863201   | 294k $\text{R} \blacktriangle$  |
| 862621   | 178 $\text{R} \blacktriangle$  | 863367   | 3.24k $\text{R} \blacktriangle$ | 862938   | 23.7k $\text{R} \blacktriangle$ | 863252   | 301k $\text{R} \blacktriangle$  |
| 862743   | 200 $\text{R} \blacktriangle$  | 863471   | 3.48k $\text{R} \blacktriangle$ | 863017   | 24.3k $\text{R} \blacktriangle$ | 863439   | 332k $\text{R} \blacktriangle$  |
| 862815   | 221 $\text{R} \blacktriangle$  | 863543   | 3.92k $\text{R} \blacktriangle$ | 863084   | 24.9k $\text{R} \blacktriangle$ | 863615   | 392k $\text{R} \blacktriangle$  |
| 862882   | 237 $\text{R} \blacktriangle$  | 921416   | 4.02k $\text{R} \blacktriangle$ | 863130   | 27.4k $\text{R} \blacktriangle$ | 862330   | 1M $\text{R} \blacktriangle$    |
| 921387   | 249 $\text{R} \blacktriangle$  | 921441   | 4.75k $\text{R} \blacktriangle$ | 863324   | 31.6k $\text{R} \blacktriangle$ | 862778   | 2M $\text{R} \blacktriangle$    |
| 863391   | 332 $\text{R} \blacktriangle$  | 863818   | 5.11k $\text{R} \blacktriangle$ | 863586   | 39.2k $\text{R} \blacktriangle$ |          |                                 |

### Case Size 0805 (ERJ-6ENFxxxx Series)

| Part No. | Ohms                           | Part No. | Ohms                            | Part No. | Ohms                            | Part No. | Ohms                            |
|----------|--------------------------------|----------|---------------------------------|----------|---------------------------------|----------|---------------------------------|
| 922128   | 10 $\text{R} \blacktriangle$   | 864538   | 750 $\text{R} \blacktriangle$   | 864482   | 4.75k $\text{R} \blacktriangle$ | 922216   | 22.1k $\text{R} \blacktriangle$ |
| 864351   | 18.2 $\text{R} \blacktriangle$ | 864546   | 825 $\text{R} \blacktriangle$   | 922259   | 4.99k $\text{R} \blacktriangle$ | 864386   | 24.9k $\text{R} \blacktriangle$ |
| 922283   | 49.9 $\text{R} \blacktriangle$ | 922005   | 1k $\text{R} \blacktriangle$    | 864491   | 5.11k $\text{R} \blacktriangle$ | 864423   | 33.2k $\text{R} \blacktriangle$ |
| 864503   | 56.2 $\text{R} \blacktriangle$ | 864319   | 1.2k $\text{R} \blacktriangle$  | 864520   | 6.81k $\text{R} \blacktriangle$ | 922064   | 100k $\text{R} \blacktriangle$  |
| 864298   | 100 $\text{R} \blacktriangle$  | 922152   | 2k $\text{R} \blacktriangle$    | 864554   | 9.09k $\text{R} \blacktriangle$ | 864378   | 221k $\text{R} \blacktriangle$  |
| 864335   | 150 $\text{R} \blacktriangle$  | 864360   | 2.21k $\text{R} \blacktriangle$ | 922030   | 10k $\text{R} \blacktriangle$   | 864431   | 332k $\text{R} \blacktriangle$  |
| 864415   | 332 $\text{R} \blacktriangle$  | 864394   | 2.94k $\text{R} \blacktriangle$ | 864327   | 14k $\text{R} \blacktriangle$   | 864440   | 357k $\text{R} \blacktriangle$  |
| 864458   | 392 $\text{R} \blacktriangle$  | 864407   | 3.01k $\text{R} \blacktriangle$ | 864343   | 15k $\text{R} \blacktriangle$   | 922099   | 1M $\text{R} \blacktriangle$    |
| 864474   | 464 $\text{R} \blacktriangle$  | 864466   | 4.53k $\text{R} \blacktriangle$ | 922187   | 20k $\text{R} \blacktriangle$   | 864301   | 1.1M $\text{R} \blacktriangle$  |

## 5% Precision Thick Film Resistors

| Case Size | Power Rating | Max. RCWW | Overload Voltage | Dimensions (mm) |      |      |     |      | Temperature Coefficient                    | Panasonic Series No. |
|-----------|--------------|-----------|------------------|-----------------|------|------|-----|------|--|----------------------|
|           |              |           |                  | L               | W    | a    | b   | t    |  |                      |
| 0402      | 1/16W        | 50V       | 100V             | 1               | 0.5  | 0.35 | 0.2 | 0.25 | —  | ERJ-2GEJ             |
| 0603      | 1/10W        | 50V       | 100V             | 1.6             | 0.8  | 0.45 | 0.3 | 0.3  | <10 $\Omega$ : -100ppm/°C ~ +600ppm/°C;    | ERJ-3GEY             |
| 0805      | 1/8W         | 150V      | 200V             | 2               | 1.25 | 0.6  | 0.4 | 0.4  | 10 $\Omega$ to 1M $\Omega$ : +/-200ppm/°C; | ERJ-6GEY             |
| 1206      | 1/4W         | 200V      | 400V             | 302             | 1.6  | 0.6  | 0.5 | 0.5  | 1M $\Omega$ >: -400ppm/°C ~ +600ppm/°C     | ERJ-8GEY             |

### Case Size 0603 (ERJ-3GEY Series)

| Part No. | Ohms                          | Part No. | Ohms                           | Part No. | Ohms                           | Part No. | Ohms                           |
|----------|-------------------------------|----------|--------------------------------|----------|--------------------------------|----------|--------------------------------|
| 921601   | 0 $\text{R} \blacktriangle$   | 864132   | 270 $\text{R} \blacktriangle$  | 864108   | 2k $\text{R} \blacktriangle$   | 864124   | 22k $\text{R} \blacktriangle$  |
| 864095   | 1 $\text{R} \blacktriangle$   | 864167   | 300 $\text{R} \blacktriangle$  | 921811   | 2.2k $\text{R} \blacktriangle$ | 864212   | 51k $\text{R} \blacktriangle$  |
| 864159   | 2.2 $\text{R} \blacktriangle$ | 921889   | 330 $\text{R} \blacktriangle$  | 864183   | 3.9k $\text{R} \blacktriangle$ | 864247   | 62k $\text{R} \blacktriangle$  |
| 921635   | 10 $\text{R} \blacktriangle$  | 921918   | 470 $\text{R} \blacktriangle$  | 921942   | 4.7k $\text{R} \blacktriangle$ | 921758   | 100k $\text{R} \blacktriangle$ |
| 921854   | 33 $\text{R} \blacktriangle$  | 864255   | 680 $\text{R} \blacktriangle$  | 864239   | 5.6k $\text{R} \blacktriangle$ | 864141   | 270k $\text{R} \blacktriangle$ |
| 864191   | 47 $\text{R} \blacktriangle$  | 864271   | 820 $\text{R} \blacktriangle$  | 864263   | 6.8k $\text{R} \blacktriangle$ | 864175   | 330k $\text{R} \blacktriangle$ |
| 864221   | 56 $\text{R} \blacktriangle$  | 921694   | 1k $\text{R} \blacktriangle$   | 864280   | 8.2k $\text{R} \blacktriangle$ | 921782   | 1M $\text{R} \blacktriangle$   |
| 921977   | 75 $\text{R} \blacktriangle$  | 864079   | 1.2k $\text{R} \blacktriangle$ | 921723   | 10k $\text{R} \blacktriangle$  | 864204   | 4.7M $\text{R} \blacktriangle$ |
| 921660   | 100 $\text{R} \blacktriangle$ | 864087   | 1.5k $\text{R} \blacktriangle$ | 864116   | 20k $\text{R} \blacktriangle$  | 864061   | 10M $\text{R} \blacktriangle$  |

### Case Size 0805 (ERJ-6GEY Series)

| Part No. | Ohms                          | Part No. | Ohms                           | Part No. | Ohms                           | Part No. | Ohms                           |
|----------|-------------------------------|----------|--------------------------------|----------|--------------------------------|----------|--------------------------------|
| 922312   | 10 $\text{R} \blacktriangle$  | 922460   | 220 $\text{R} \blacktriangle$  | 864626   | 2.4k $\text{R} \blacktriangle$ | 864618   | 22k $\text{R} \blacktriangle$  |
| 864597   | 18 $\text{R} \blacktriangle$  | 864642   | 300 $\text{R} \blacktriangle$  | 864634   | 2.7k $\text{R} \blacktriangle$ | 864669   | 47k $\text{R} \blacktriangle$  |
| 864685   | 56 $\text{R} \blacktriangle$  | 922494   | 330 $\text{R} \blacktriangle$  | 864651   | 3.3k $\text{R} \blacktriangle$ | 864677   | 51k $\text{R} \blacktriangle$  |
| 864706   | 68 $\text{R} \blacktriangle$  | 922523   | 470 $\text{R} \blacktriangle$  | 864714   | 6.8k $\text{R} \blacktriangle$ | 864693   | 62k $\text{R} \blacktriangle$  |
| 864722   | 75 $\text{R} \blacktriangle$  | 922558   | 820 $\text{R} \blacktriangle$  | 922401   | 10k $\text{R} \blacktriangle$  | 922435   | 100k $\text{R} \blacktriangle$ |
| 922347   | 100 $\text{R} \blacktriangle$ | 922371   | 1K $\text{R} \blacktriangle$   | 864589   | 16k $\text{R} \blacktriangle$  | 864562   | 10M $\text{R} \blacktriangle$  |
| 864571   | 150 $\text{R} \blacktriangle$ | 864600   | 2.2k $\text{R} \blacktriangle$ |          |                                |          |                                |



## 10 Series Current Sense Axial-Lead Wire Element Resistor

- Ideal for current sensing applications
- 2W, 2 terminal, 1% tolerance
- Terminals: solder plated copper or copper clad steel
- Encapsulation: silicon molding compound
- Derating: linearly from 100% @ 25°C to 0% @ 275°C
- Power rating: based on 25°C free air rating
- Overload: 5 x rated wattage for 5 seconds
- Dielectric withstanding voltage: 1000Vrms
- Insulation resistance: 1000MΩ
- Thermal EMF: ±2μV/°C
- Temp. range: -55°C to 275°C

| Part No. | Product No. | Ohms   | 1      | 10     | 100    |
|----------|-------------|--------|--------|--------|--------|
| 619516   | 12FR025     | 0.025Ω | \$1.69 | \$1.61 | \$1.54 |

## 20 Series Vitreous Enamel Conformal Axial-Lead Wire Wound Resistor

- Ideal for computer, and industrial applications
- Vitreous enamel coatings withstands high humidity and temperature cycling
- Coating: flame resistant lead free enamel coating
- Power: 3W
- Terminal: solder coated
- Derating: linearly from 100% @ 25°C to 0% @ 350°C
- Power rating: based on 25°C free air rating
- Overload: 5 x rated wattage for 5 seconds
- Temperature coefficient: ±30ppm/°C

| Part No. | Product No. | Ohms | 1      | 10     | 100    |
|----------|-------------|------|--------|--------|--------|
| 619541   | 23J56R      | 56Ω  | \$9.99 | \$8.87 | \$7.76 |

## 40 Series OHMICONE®, Silicone-Ceramic Conformal Axial-Lead Wire Wound Resistors

- All welded construction
- Characterized by their low temperature coefficient & resistance shock
- Applications: commercial, industrial, & communication
- Stability under high-temperature conditions
- Coating: conformal silicone ceramic
- Core: ceramic
- Terminals: solder coated, copper clad
- Derating: linearly from 100% @ 25°C to 0% @ 275°C
- Power rating: based on 25°C free air rating
- Overload: 5 x rated for under 5W; 10 x rated for 5W and over (for 5 seconds)
- Temperature coefficient: under 1Ω = ±90ppm/°C; over 10Ω = ±20ppm/°C

| Part No. | Product No. | Ohms    | 1      | 10     | 100    |
|----------|-------------|---------|--------|--------|--------|
| 619559   | 40J50R      | 50Ω/10W | \$1.29 | \$1.10 | \$1.09 |
| 619567   | 43JR10      | 0.1Ω/3W | 1.59   | 1.49   | 1.39   |

## 200 Series Brown Devil® Vitreous Enamel Power Resistors

- Small, exceptionally durable
- High-power ratings
- Coating: lead free vitreous enamel
- Terminal: tinned axial lead
- Derating: linearly from 100% @ 25°C to 0% @ 350°C
- Tolerance: 5%
- Power: 8W
- Power rating: based on 25°C free air rating
- Overload: 10 x rated wattage for 5 seconds
- Temperature coefficient: under 5Ω = ±400ppm/°C; over 5Ω = ±260ppm/°C

| Part No. | Product No. | Ohms | 1      | 10     | 100    |
|----------|-------------|------|--------|--------|--------|
| 619604   | B8J1K0      | 1kΩ  | \$2.49 | \$2.29 | \$1.96 |
| 619612   | B8J1R5      | 1.5Ω | 3.59   | 3.21   | 2.67   |

## 250 Series "Thin" Stockholm® Vitreous Enamel Power Resistors

- Small size-to-power ratio
- Stackable
- Integral mounting bracket conducts heat to mounting surface
- Coating: lead free vitreous enamel
- Core: ceramic
- Terminals: tinned lug with hole
- Derating: linearly from 100% @ 25°C to 0% @ 350°C
- Power rating: based on mounting a single resistor on metal. Reduce rating by 15% when mounting on non-metallic surface
- Overload: 5 x rated wattage for 5 seconds
- Temperature coefficient: ±260ppm/°C
- Dielectric withstanding voltage: 1000VAC

| Part No. | Product No. | Ohms     | 1      | 10     | 100    |
|----------|-------------|----------|--------|--------|--------|
| 619639   | F40J25R     | 25Ω/40W  | \$9.55 | \$8.99 | \$8.77 |
| 619647   | F55J10K     | 10kΩ/55W | 13.95  | 11.79  | 9.07   |

## 270 Series Vitreous Enamel Power Resistors

- Terminals suitable for soldering or bolt connection
- High-wattage applications
- Core: tubular ceramic
- Coating: lead free vitreous enamel
- Terminals: solder coated radial lug
- Derating: linearly from 100% @ 25°C to 0% @ 350°C
- Tolerance: 5%
- Power: 25W
- Power rating: based on 25°C free air rating
- Overload: 10 x rated wattage for 5 seconds
- Temperature coefficient: ±400ppm/°C
- Dielectric withstanding voltage: 1000VAC

| Part No. | Product No. | Ohms | 1      | 10     | 100    |
|----------|-------------|------|--------|--------|--------|
| 619655   | L25J2R0     | 2Ω   | \$5.49 | \$3.88 | \$3.15 |

## OX Series Ceramic Composition Resistors

- High-peak power
- Replaces 1 & 2 watt carbon composition resistors
- Meets high energy density demands
- Tolerance: ±10%
- Power: 1W
- Terminals: solder coated axial leads
- Coating: UL94V-0 approved silicone
- Derating: linearly from 100% @ 70°C to 0% @ 200°C
- Power rating: based on 70°C free air rating
- Temperature coefficient: -1300 to 300ppm/°C
- Working voltage: 300V
- Dielectric strength: 500V
- Max. overload voltage: 600V

| Part No. | Product No. | Ohms | 1      | 10     | 100    |
|----------|-------------|------|--------|--------|--------|
| 619663   | OX150K      | 15Ω  | \$0.95 | \$0.85 | \$0.75 |
| 619680   | OX390K      | 39Ω  | .95    | .85    | .75    |

## Thru-Bolts & Mounting Brackets for 210 & 270 Series

- Steel plated brackets allow for secure mounting of 210 and 270 type resistors
- Thru-bolts, centering washers & insulating washers included
- For 175W single resistor

| Part No. | Product No. | Description | 1       | 10     | 100    |
|----------|-------------|-------------|---------|--------|--------|
| 619583   | 6110-8/16   | Slotted     | \$10.09 | \$8.28 | \$6.90 |

## Mounting Brackets

- Fits inside cores of 200, 210, & 270 type resistors
- Steel plated
- For 8 & 12 Watt

| Part No. | Product No. | Description | 1       | 10      | 100     |
|----------|-------------|-------------|---------|---------|---------|
| 619575   | 5-100       | Slotted     | \$29.99 | \$28.95 | \$27.49 |

## Get It Straight!

Whether you're prototyping, hand-manufacturing a small run or repairing a machine-manufactured PC board, appearance and reliability are synonymous. Bent leads, odd-shaped-corners and corkscrew leads all tell a story when someone inspects your work.

A simple and very effective hand tool can greatly enhance the professional look of your PC board work. So consider a 'Lead bender' like the one on page 79. It's very easy to select the specific lead separation you need. Just drop the device in the corresponding slot, bend your leads down and insert the device in your board.

**Practical Practices**  
Money Saving Tips for the Engineer

◆ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

Color Code Legend  
New Sale Lower\$ QtySave

Order 24/7 Toll Free 1-800-831-4242

# Potentiometers – 24mm Linear & Audio Taper

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |

**Honeywell**

## RV4N Style 2-Watt Linear Taper (±10%)

- Shaft diameter: 0.25"
- Shaft length: 0.875"
- 2W @ 70°C ambient
- Temp. range: -55°C to +120°C
- Non-rotational key
- Mounting hole: 0.375"
- Maximum panel thickness: 0.25"



95417

Includes: Mounting hardware

| Qty.  | 1      | 10     | 25     | 50     |
|-------|--------|--------|--------|--------|
| Price | \$7.39 | \$6.54 | \$5.45 | \$5.20 |

| Part No. | Product No. | Military No. | Ohms |
|----------|-------------|--------------|------|
| 241568   | 53C3-100    | RV4NAYSD101A | 100  |
| 241584   | 53C3-250    | RV4NAYSD251A | 250  |
| 183610   | 53C3-500    | RV4NAYSD501A | 500  |
| 13936    | 53C3-1k     | RV4NAYSD102A | 1k   |
| 241613   | 53C3-2k     | RV4NAYSD202A | 2k   |
| 241621   | 53C3-2.5k   | RV4NAYSD252A | 2.5k |
| 13995    | 53C3-5k     | RV4NAYSD502A | 5k   |
| 13952    | 53C3-10k    | RV4NAYSD103A | 10k  |
| 241648   | 53C3-15k    | RV4NAYSD153A | 15k  |
| 241656   | 53C3-20k    | RV4NAYSD203A | 20k  |
| 241664   | 53C3-25k    | RV4NAYSD253A | 25k  |
| 95417    | 53C3-50k    | RV4NAYSD503A | 50k  |
| 13979    | 53C3-100k   | RV4NAYSD104A | 100k |
| 241681   | 53C3-250k   | RV4NAYSD254A | 250k |
| 241699   | 53C3-350k   | RV4NAYSD354A | 350k |
| 241728   | 53C3-1Meg   | RV4NAYSD105A | 1M   |



## 1/2-Watt 24mm Linear Taper (±20%)



.335\"/>






.531\"/>



1.32\"/>

- Maximum voltage: 500V
- Rotational angle: 300° (±5°)
- Withstanding voltage for 1 minute: 500VAC
- Solder lugs

| Part Number  | RV24A-10-15R1-Bxxx   | RV24A-10-20K-Bxxx  | RV24A-10-40R1-Bxxx  |
|--------------|--|--|---|
| Shaft Length | 0.335"  | 0.531"  | 1.32"  |
| 1 pc.        | \$1.19   | \$1.19   | \$1.15  |
| 10 pcs.      | \$0.91   | \$0.91   | \$0.95  |
| 100 pcs.     | \$0.83   | \$0.83   | \$0.86  |
| 500 pcs.     | \$0.76   | \$0.76   | \$0.79  |



## 1/2-Watt Linear Taper (±10%)

- Temperature range: -55°C to +125°C
- Non-rotational key
- Non-slotted shaft end
- Mounting hole: 0.3125"
- Maximum panel thickness: 0.1875"
- Shaft diameter: 0.25" • Shaft length: 0.50"

Includes: Mounting hardware

Blue Part No. = Limited Quantity Available

| Qty.  | 1      | 10     | 100    | 500    |
|-------|--------|--------|--------|--------|
| Price | \$ .99 | \$ .79 | \$ .65 | \$ .55 |

| Part No | Cross Ref. No. | Ohms | Part No | Cross Ref. No. | Ohms |
|---------|----------------|------|---------|----------------|------|
| 29050   | P1K            | 1k   | 29103   | P100K          | 100k |
| 29196   | P5K            | 5k   | 29066   | P1MEG          | 1M   |
| 29081   | P10K           | 10k  |         |                |      |



29081



## 1/5-Watt 16mm Linear Taper with SPST Switch (±20%)

- Shaft length: 0.374"
- Rated voltage: 200V
- Shaft diameter: 0.250"
- Total rotation angle: 270° (±5°)
- Rotation life: 100,000 cycles
- Switch life: 10,000 times
- Terminal type: PC terminal (vertical; back)
- Insulation resistance: >100MΩ @ 500VDC
- Switch contact resistance: <100mΩ
- Switch rating: 250VAC 10A



286767

| Qty.  | 1      | 10     | 100    | 500    |
|-------|--------|--------|--------|--------|
| Price | \$2.25 | \$1.90 | \$1.73 | \$1.57 |

| Part No. | Product No.         | Ohms |
|----------|---------------------|------|
| 286767   | RV16C-40-16F1-B5K   | 5k   |
| 286775   | RV16C-40-16F1-B10K  | 10k  |
| 286791   | RV16C-40-16F1-B500K | 500k |



## 1/2-Watt 24mm Linear Taper with SPST Switch (±20%)

- Shaft length: 0.335"
- Shaft diameter: 0.250"
- Terminal type: solder lugs
- Maximum voltage: 500V
- Switch rating: 125VAC, 1A
- Rotational angle: 300° (±5°)

Blue Part No. = Limited Quantity Available



263759

| Qty.  | 1      | 10     | 100    | 500    |
|-------|--------|--------|--------|--------|
| Price | \$1.59 | \$1.36 | \$1.24 | \$1.13 |

| Part No. | Product No.           | Ohms |
|----------|-----------------------|------|
| 263759   | RV24A01-10-15R1-B500  | 500  |
| 263768   | RV24A01-10-15R1-B1K   | 1k   |
| 263775   | RV24A01-10-15R1-B2.5K | 2.5k |
| 263784   | RV24A01-10-15R1-B5K   | 5k   |
| 263792   | RV24A01-10-15R1-B10K  | 10k  |
| 263813   | RV24A01-10-15R1-B50K  | 50k  |
| 263822   | RV24A01-10-15R1-B100K | 100k |
| 263840   | RV24A01-10-15R1-B250K | 250k |
| 263848   | RV24A01F-10-15R1-B55  | 500k |



## 1/4-Watt 24mm Audio Taper (±20%)

- Shaft length: 0.335"
- Maximum voltage: 250V
- Shaft diameter: 0.250"
- Terminal type: solder lugs
- Rotational angle: 300° (±5°)
- Insulation resistance: >100MΩ @ 500VDC

Blue Part No. = Limited Quantity Available

255397



| Qty.  | 1      | 10     | 100    | 500    |
|-------|--------|--------|--------|--------|
| Price | \$1.19 | \$ .91 | \$ .83 | \$ .76 |

| Part No. | Product No.         | Ohms |
|----------|---------------------|------|
| 255417   | RV24A-10-15R1-A5K   | 5k   |
| 255425   | RV24A-10-15R1-A10K  | 10k  |
| 255434   | RV24A-10-15R1-A50K  | 50k  |
| 255441   | RV24A-10-15R1-A100K | 100k |
| 255451   | RV24A-10-15R1-A500K | 500k |
| 255469   | RV24A-10-15R1-A1M   | 1M   |



## 1/5-Watt 16mm Linear Taper, Single Detent

- Shaft length: 0.335"
- Rated voltage: 200V
- Shaft diameter: 0.250"
- Total rotation angle: 300° (±5°)
- Rotation life: 15,000 cycles
- Insulation resistance: >100MΩ @ 500VDC
- Withstanding voltage: 500VAC for 1 minute

286353



| Qty.  | 1      | 10     | 100    | 500    |
|-------|--------|--------|--------|--------|
| Price | \$1.35 | \$1.13 | \$1.04 | \$ .94 |

| Part No. | Product No.            | Ohms |
|----------|------------------------|------|
| 286353   | RV16A-10-15R1-B1K-OC   | 1k   |
| 286388   | RV16A-10-15R1-B10K-OC  | 10k  |
| 286408   | RV16A-10-15R1-B50K-OC  | 50k  |
| 286417   | RV16A-10-15R1-B100K-OC | 100k |



## 1/4-Watt 24mm Audio Taper with SPST Switch (±20%)

- Shaft length: 0.590"
- Voltage rating: 250V
- Shaft diameter: 0.250"
- Switch rating: 125VAC, 1A
- Rotational angle: 300° (±5°)

263601



| Qty.  | 1      | 10     | 100    | 500    |
|-------|--------|--------|--------|--------|
| Price | \$1.59 | \$1.36 | \$1.24 | \$1.13 |

| Part No. | Product No.          | Ohms |
|----------|----------------------|------|
| 263636   | RV24A01-10-15R1-A10K | 10k  |
| 263645   | RV24A01-10-15R1-A50K | 50k  |

## Free Technical Support

Our knowledgeable Tech Support department is ready to answer your questions. Just call us!  
1-800-831-4242

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



## 1/5-Watt 16mm Linear Taper

- Shaft length: 0.335"
- Rated voltage: 200V
- Shaft diameter: 0.250"
- Rotation angle: 300° (±5°)
- Rotational life: 15,000 cycles
- Insulation resistance: >100MΩ @ 500VDC
- Withstanding voltage: 500VAC for 1 minute



286256

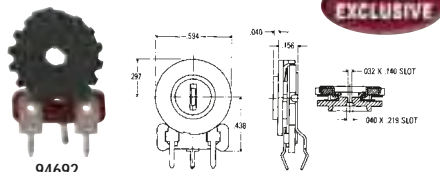
| Qty.  | 1      | 10     | 100    | 500    |
|-------|--------|--------|--------|--------|
| Price | \$1.15 | \$1.00 | \$0.87 | \$0.80 |

| Part No. | Product No.         | Ohms |
|----------|---------------------|------|
| 286249   | RV16A-10-15R1-B1K   | 1k   |
| 286256   | RV16A-10-15R1-B2K   | 2k   |
| 286265   | RV16A-10-15R1-B5K   | 5k   |
| 286273   | RV16A-10-15R1-B10K  | 10k  |
| 286282   | RV16A-10-15R1-BF4   | 25k  |
| 286300   | RV16AF-10-15R1-B54  | 50k  |
| 286302   | RV16A-10-15R1-B15   | 100k |
| 286310   | RV16A-10-15R1-B250K | 250k |
| 286329   | RV16A-10-15R1-B55   | 500k |
| 286337   | RV16A-10-15R1-B1M   | 1M   |



## 1/4-Watt Miniature Linear (±20%)

### X201 (19/32") Vertical Mount



- 15mm thick
- Power rating: below 5kΩ – 1/4 watt @ 40°C  
5kΩ & above – 1/4 watt @ 55°C
- Total rotation: 260° ±5°
- Voltage rating: 350VDC

#### Cross Ref. Chart

| Equivalent to: |       |
|----------------|-------|
| CTS            | X201R |
| Bourns         | 3355X |
| PIHER          | PT15  |

| Qty.  | 1      | 10     | 100    | 500    |
|-------|--------|--------|--------|--------|
| Price | \$0.45 | \$0.39 | \$0.35 | \$0.29 |

| Part No. | Cross Ref. No. | Ohms | Part No. | Cross Ref. No. | Ohms |
|----------|----------------|------|----------|----------------|------|
| 94692    | X201R1K        | 1k   | 94714    | X201R10K       | 10k  |
| 35502    | X201R252B      | 2.5k | 94721    | X201R50K       | 50k  |
| 94705    | X201R5K        | 5k   | 94730    | X201R100K      | 100k |

## 1/2-Watt Trimming Potentiometers (±10%)

### 3362P Series

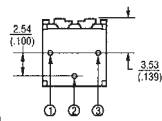
- Linear taper
- Insulation resistance: 500VDC 1,000MΩ minimum
- Absolute minimum resistance: 1% or 2Ω maximum
- Contact resistance variation: 1% or 3Ω maximum
- Rotational life: 200 cycles
- Terminals: solderable pins
- Top adjustment: 240° nominal
- Wiper positioning: 50% nominal



191645

#### Cross Ref. Chart

| Equivalent to: |       |
|----------------|-------|
| Bourns         | 3362P |
| Copal          | CT-6P |
| Murata         | PVC6  |
| Vishay         | 76    |



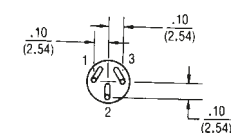
Blue Part No. = Limited Quantity Available

| Qty.  | 1      | 10     | 100    | 500    |
|-------|--------|--------|--------|--------|
| Price | \$0.69 | \$0.62 | \$0.47 | \$0.42 |

| Part No. | Cross Ref. No. | Ohms | Part No. | Cross Ref. No. | Ohms |
|----------|----------------|------|----------|----------------|------|
| 191645   | 3362P-200      | 20   | 182836   | 3362P-103      | 10k  |
| 182810   | 3362P-501      | 500  | 182852   | 3362P-105      | 1M   |
| 182828   | 3362P-502      | 5k   |          |                |      |

## 1/2-Watt, 1/4" Round, Cermet Potentiometers (±10%)

### 3329P Series



- Sealed to withstand wave soldering and immersion cleaning process
- Extended temperature range: -55°C to +150°C
- TO-5 grid
- Terminals: solderable pins

#### Cross Ref. Chart

| Equivalent to: |       |
|----------------|-------|
| Beckman        | 82M   |
| Bourns         | 3329P |
| Mecopac        | 8050  |
| MEC            | 471   |
| Murata         | 3321P |
| Spectrol       | 62-3  |
| VRN            | 171   |
| Weston         | 567   |



95484

| Qty.  | 1      | 10     | 100    | 500    |
|-------|--------|--------|--------|--------|
| Price | \$1.89 | \$1.59 | \$1.29 | \$1.19 |

| Part No. | Cross Ref. No. | Ohms | Part No. | Cross Ref. No. | Ohms |
|----------|----------------|------|----------|----------------|------|
| 95441    | 3329P-102      | 1k   | 96719    | 3329P-103      | 10k  |
| 95450    | 3329P-502      | 5k   | 95484    | 3329P-104      | 100k |

## 1/2-Watt, 3/8" Square, Single-Turn Cermet (±10%)

- Top adjustment
- 1/2 watt linear taper @ 70°C
- PC pins: 0.100" grid (2.54mm)
- Temperature range: -55°C to +125°C
- Sealed to guard against contaminants
- Pin spacing: 0.1" († 43060 & 105216: 0.2")



42964

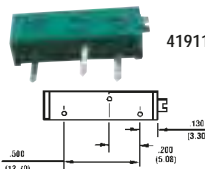
#### Cross Ref. Chart

| Equivalent to: |         |
|----------------|---------|
| Allen Bradley  | E2B     |
| Beckman        | 72PR    |
| Bourns         | 3386P   |
| Mecopac        | 8038    |
| Murata         | 3104P   |
| Spectrol       | 63P     |
| VRN            | 780-12P |
| Weston         | 840P    |

| Qty.  | 1      | 10     | 100    | 500    |
|-------|--------|--------|--------|--------|
| Price | \$0.85 | \$0.79 | \$0.69 | \$0.49 |

| Part No. | Cross Ref. No. | Ohms | Part No. | Cross Ref. No. | Ohms |
|----------|----------------|------|----------|----------------|------|
| 43123    | 63P500         | 500  | 43107    | 63P50K         | 50k  |
| 42964    | 63P1K          | 1k   | 43027    | 63P100K        | 100k |
| 43043    | 63P2K          | 2k   | 43060    | 63P300K†       | 300k |
| 43078    | 63P5K          | 5k   | 63212    | 63P500K        | 500k |
| 43001    | 63P10K         | 10k  | 42981    | 63P1MEG        | 1M   |
| 43051    | 63P20K         | 20k  | 105216   | 63P2MEG†       | 2M   |

## 3/4-Watt, 3/4" Rectangular 15-Turn Linear Cermet (±10%)



41911

#### Cross Ref. Chart

| Equivalent to: |        |
|----------------|--------|
| Allen Bradley  | 94P    |
| Beckman        | 89PR   |
| Bourns         | 3006P  |
| Litton         | 6034Y  |
| Mecopac        | 8034   |
| Murata         | 2101P  |
| Spectrol       | 43P    |
| VRN            | 961-20 |
| Weston         | 830P   |

- PC pins: 0.100" grid (2.54mm)
- Side adjustment
- Temperature range: -55°C to +125°C
- Sealed to guard against contaminants

| Qty.  | 1      | 10     | 100    | 500    |
|-------|--------|--------|--------|--------|
| Price | \$1.05 | \$0.99 | \$0.89 | \$0.75 |

| Part No. | Cross Ref. No. | Ohms | Part No. | Cross Ref. No. | Ohms |
|----------|----------------|------|----------|----------------|------|
| 181972   | 43P201         | 200  | 41873    | 43P20K         | 20k  |
| 41937    | 43P500         | 500  | 41911    | 43P50K         | 50k  |
| 41785    | 43P1K          | 1k   | 41849    | 43P100K        | 100k |
| 41865    | 43P2K          | 2k   | 63001    | 43P200K        | 200k |
| 41890    | 43P5K          | 5k   | 41806    | 43P1MEG        | 1M   |
| 41822    | 43P10K         | 10k  |          |                |      |

## 1/2-Watt, 1/4" Round, Cermet Potentiometers (±10%)

### Bourns 3329P Series Value Equivalents

- Sealed to withstand wave soldering and immersion cleaning process
- Extended temperature range: -55°C to +150°C
- TO-5 grid
- Terminals: solderable pins



Blue Part No. = Limited Quantity Available

| Qty.  | 1      | 10     | 50     | 100    |
|-------|--------|--------|--------|--------|
| Price | \$1.69 | \$1.53 | \$1.29 | \$1.21 |

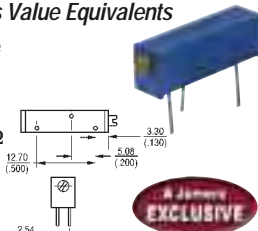
| Part No. | Cross Ref. No. | Ohms | Part No. | Cross Ref. No. | Ohms |
|----------|----------------|------|----------|----------------|------|
| 254490   | 3329P-102      | 1k   | 254554   | 3329P-503      | 50k  |
| 254502   | 3329P-202      | 2k   | 254561   | 3329P-104      | 100k |
| 254511   | 3329P-502      | 5k   | 254570   | 3329P-204      | 200k |
| 254529   | 3329P-103      | 10k  | 254597   | 3329P-105      | 1M   |
| 254538   | 3329P-203      | 20k  |          |                |      |



## 3/4-Watt, 3/4" Rectangular, 15-Turn Cermet Potentiometer Side Adjustment ( $\pm 10\%$ )

### Bourns 3006P Series Value Equivalents

- Low PC board profile
  - Temperature range:  $-55^{\circ}\text{C}$  to  $125^{\circ}\text{C}$
  - Absolute minimum resistance:  $1\%$  or  $2\Omega$
  - Contact resistance variation:  $1\%$  or  $1\Omega$  maximum
  - Power rating:  $0.75\text{W}$  @  $70^{\circ}\text{C}$  ( $400\text{V}$  maximum)
- Blue Part No. = Limited Quantity Available



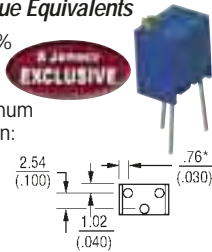
| Qty.  | 1      | 10     | 50     | 100    |
|-------|--------|--------|--------|--------|
| Price | \$1.25 | \$1.15 | \$ .99 | \$ .89 |

| Part No. | Cross Ref No. | Ohms | Part No. | Cross Ref No. | Ohms |
|----------|---------------|------|----------|---------------|------|
| 241234   | 3006P-101     | 100  | 241306   | 3006P-203     | 20k  |
| 241242   | 3006P-201     | 200  | 241314   | 3006P-253     | 25k  |
| 241251   | 3006P-501     | 500  | 241322   | 3006P-503     | 50k  |
| 241269   | 3006P-102     | 1k   | 241331   | 3006P-104     | 100k |
| 241277   | 3006P-202     | 2k   | 241350   | 3006P-204     | 200k |
| 241285   | 3006P-502     | 5k   | 241365   | 3006P-504     | 500k |
| 241293   | 3006P-103     | 10k  | 241373   | 3006P-105     | 1M   |

## 1/4-Watt, 1/4" Square Trimming Potentiometers, Top Adjustment ( $\pm 10\%$ )

### Bourns 3266W Series Value Equivalents

- Resistance tolerance:  $\pm 10\%$
  - 12 turns nominal
  - Insulation resistance: ( $500\text{VDC}$ )  $1,000\text{M}\Omega$  minimum
  - Contact resistance variation:  $3\%$  or  $3\Omega$  maximum (whichever is greater)
  - Absolute min. resistance:  $1\%$  or  $2\Omega$  maximum (whichever is greater)
  - Power rating:  $0.25\text{W}$  @  $70^{\circ}\text{C}$  ( $300\text{V}$  maximum)
- Blue Part No. = Limited Quantity Available



| Qty.  | 1      | 10     | 50     | 100    |
|-------|--------|--------|--------|--------|
| Price | \$2.29 | \$1.99 | \$1.93 | \$1.83 |

| Part No. | Cross Ref No. | Ohms | Part No. | Cross Ref No. | Ohms |
|----------|---------------|------|----------|---------------|------|
| 254609   | 3266W-500     | 50   | 254684   | 3266W-203     | 20k  |
| 254617   | 3266W-101     | 100  | 254692   | 3266W-253     | 25k  |
| 254625   | 3266W-201     | 200  | 254706   | 3266W-503     | 50k  |
| 254633   | 3266W-501     | 500  | 254714   | 3266W-104     | 100k |
| 254641   | 3266W-102     | 1k   | 254721   | 3266W-204     | 200k |
| 254651   | 3266W-202     | 2k   | 254730   | 3266W-504     | 500k |
| 254668   | 3266W-502     | 5k   | 254748   | 3266W-105     | 1M   |
| 254676   | 3266W-103     | 10k  |          |               |      |

## Pocket Trimmer Potentiometer Adjustment Tool

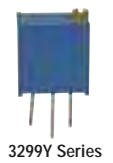
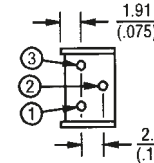
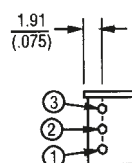
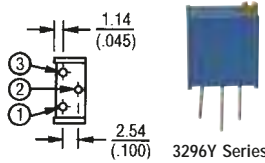
- Glass-filled body
- Stainless steel blade
- Size: 5.2"L



| Part No. | Description  | 1      | 10     | 100    |
|----------|--------------|--------|--------|--------|
| 153314   | Trimmer tool | \$1.35 | \$1.22 | \$1.09 |

Our friendly Sales department will assist you 24x7x365 by phone, fax, web or email. 1-800-831-4242

## 1/2-Watt, 3/8" Square, Multi-Turn Trimming Potentiometers, Top Adjustment ( $\pm 10\%$ )



### 3296Y/3299Y – Y Layout Solder Pins and 3299W – In-Line Solder Pins

- Resistance tolerance:  $\pm 10\%$
- 25 turns nominal
- Insulation resistance: ( $500\text{VDC}$ )  $1000\text{M}\Omega$  min.
- Contact resistance variation:  $1\%$  or  $3\Omega$  max.
- Absolute minimum resistance:  $1\%$  or  $2\Omega$  max.
- Power rating:  $0.5\text{W}$  @  $70^{\circ}\text{C}$  ( $300\text{V}$  max.)

To order, replace "xxx" in the Part No. with the value to the right (e.g. – order 3296Y-503 for a  $50\text{k}\Omega$  ValuePro Series 3296Y).

|                     |                     |
|---------------------|---------------------|
| 100 $\Omega$ — 100  | 10k $\Omega$ — 103  |
| 200 $\Omega$ — 200  | 20k $\Omega$ — 203  |
| 500 $\Omega$ — 500  | 25k $\Omega$ — 253  |
| 1000 $\Omega$ — 101 | 50k $\Omega$ — 503  |
| 2000 $\Omega$ — 201 | 100k $\Omega$ — 104 |
| 5000 $\Omega$ — 501 | 250k $\Omega$ — 254 |
| 1k $\Omega$ — 102   | 500k $\Omega$ — 504 |
| 2k $\Omega$ — 202   | 1M $\Omega$ — 105   |
| 5k $\Omega$ — 502   | 2M $\Omega$ — 205   |

### Attention Budget-Minded Buyers!

Jameco now offers high-quality Bourns® equivalents below, and they're priced to save you money. You'll get consistent form, fit and function, without paying the added surcharge for brand name components.

| Series      | 3296Y     | 3299W     | 3299Y     |
|-------------|-----------|-----------|-----------|
| Part Number | 3296Y-xxx | 3299W-xxx | 3299Y-xxx |
| 1 pc.       | \$1.69    | \$1.99    | \$1.99    |
| 10 pcs.     | \$1.56    | \$1.82    | \$1.82    |
| 100 pcs.    | \$1.42    | \$1.53    | \$1.53    |
| 500 pcs.    | \$1.28    | \$1.35    | \$1.35    |

### Bourns® Potentiometers

Jameco now offers a broad selection of industry-renowned Bourns multi-turn potentiometers below. They're ideal for integration into devices requiring high-precision pots.

| Series      | 3296Y       | 3299W       | 3299Y       |
|-------------|-------------|-------------|-------------|
| Part Number | 3296Y-1-xxx | 3299W-1-xxx | 3299Y-1-xxx |
| 1 pc.       | \$1.99      | \$2.39      | \$2.39      |
| 10 pcs.     | \$1.85      | \$2.25      | \$2.19      |
| 100 pcs.    | \$1.66      | \$1.99      | \$1.79      |
| 500 pcs.    | \$1.49      | \$1.79      | \$1.59      |

## 1/2-Watt, 1/4" Square, Single-Turn Cermet Potentiometers

### Bourns 3362 Series Value Equivalents

- Resistance tolerance:  $\pm 10\%$
- Insulation resistance: ( $500\text{VDC}$ )  $1,000\text{M}\Omega$
- Absolute minimum resistance:  $1\%$  or  $2\Omega$  (whichever is greater)
- Contact resistance variation:  $1\%$  or  $3\Omega$  max. (whichever is greater)
- Power rating:  $0.5\text{W}$  @  $70^{\circ}\text{C}$  ( $300\text{V}$  max.)



3362P Series  
Top Adjustment

3362W Series  
Side Adjustment

|  |   |  |
|--|---|--|
| To order, replace "xxx" in the Part No. with the value to the right (e.g. – order 3362P-503 for a $50\text{k}\Omega$ ValuePro Series 3362P). | 100 $\Omega$ — 101<br>200 $\Omega$ — 201<br>500 $\Omega$ — 501<br>1k $\Omega$ — 102<br>2k $\Omega$ — 202<br>5k $\Omega$ — 502<br>10k $\Omega$ — 103 | 20k $\Omega$ — 203<br>25k $\Omega$ — 253<br>50k $\Omega$ — 503<br>100k $\Omega$ — 104<br>200k $\Omega$ — 204<br>500k $\Omega$ — 504<br>1M $\Omega$ — 105 |
|--|---|--|

| Series      | 3362P     | 3362W     |
|-------------|-----------|-----------|
| Part Number | 3362P-xxx | 3362W-xxx |
| 1 pc.       | \$0.59    | \$0.59    |
| 10 pcs.     | \$0.55    | \$0.54    |
| 100 pcs.    | \$0.45    | \$0.45    |
| 500 pcs.    | \$0.42    | \$0.41    |

## 1/2-Watt, 3/8" Square, Single-Turn Trimming Potentiometers

### Bourns 3386 Series Value Equivalents

- Resistance tolerance:  $\pm 10\%$
- Insulation resistance: ( $500\text{VDC}$ )  $1,000\text{M}\Omega$  min.
- Absolute minimum resistance:  $2\Omega$
- Contact resistance variation:  $2\%$  or  $3\Omega$  max. (whichever is greater)



3386P Series  
Top Adjustment

3386W Series  
Side Adjustment

3386X Series  
Side Adjustment

|  |  |  |
|--|--|--|
| To order, replace "xxx" in the Part No. with the value to the right (e.g. – order 3386P-503 for a $50\text{k}\Omega$ ValuePro Series 3386P). | 50 $\Omega$ — 500<br>100 $\Omega$ — 101<br>200 $\Omega$ — 201<br>500 $\Omega$ — 501<br>1k $\Omega$ — 102<br>2k $\Omega$ — 202<br>5k $\Omega$ — 502<br>10k $\Omega$ — 103<br>20k $\Omega$ — 203 | 25k $\Omega$ — 253<br>50k $\Omega$ — 503<br>100k $\Omega$ — 104<br>200k $\Omega$ — 204<br>250k $\Omega$ — 254<br>500k $\Omega$ — 504<br>1M $\Omega$ — 105<br>2M $\Omega$ — 205 |
|--|--|--|

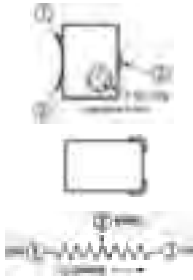
| Series      | 3386P     | 3386W     | 3386X     |
|-------------|-----------|-----------|-----------|
| Part Number | 3386P-xxx | 3386W-xxx | 3386X-xxx |
| 1 pc.       | \$0.85    | \$0.89    | \$0.85    |
| 10 pcs.     | \$0.76    | \$0.79    | \$0.76    |
| 100 pcs.    | \$0.67    | \$0.69    | \$0.67    |
| 500 pcs.    | \$0.64    | \$0.65    | \$0.64    |

For more Bourns Potentiometers visit [www.Jameco.com](http://www.Jameco.com)

## 4mm Square SMD, Multi-Turn Sealed Cermet Trimming Top Adjust ( $\pm 10\%$ )

### 3224W Series, 1/4W

- Resistance tolerance:  $\pm 10\%$
- 11 turns nominal
- Insulation resistance: (500VDC) 100M $\Omega$  min.
- Contact resistance variation: 1% or 3 $\Omega$  max.
- Absolute min. resistance: 1% or 2 $\Omega$  max.
- Power rating: 0.25W @ 85°C (300V max.)



| Qty.  | 1      | 10     | 50     | 100    |
|-------|--------|--------|--------|--------|
| Price | \$3.79 | \$3.29 | \$2.89 | \$2.59 |

| Part No. | Product No.                   | Ohms |
|----------|-------------------------------|------|
| 696239   | 3224W-1-101E $\blacktriangle$ | 100  |
| 696271   | 3224W-1-201E $\blacktriangle$ | 200  |
| 696301   | 3224W-1-501E $\blacktriangle$ | 500  |
| 696247   | 3224W-1-102E $\blacktriangle$ | 1k   |
| 696280   | 3224W-1-202E $\blacktriangle$ | 2k   |
| 696319   | 3224W-1-502E $\blacktriangle$ | 5k   |
| 696255   | 3224W-1-103E $\blacktriangle$ | 10k  |
| 696298   | 3224W-1-203E $\blacktriangle$ | 20k  |
| 696327   | 3224W-1-503E $\blacktriangle$ | 50k  |
| 696263   | 3224W-1-104E $\blacktriangle$ | 100k |

### 3214W Series, 1/4W

- Resistance tolerance:  $\pm 10\%$
- 15 turns nominal
- Insulation resistance: (500VDC) 100M $\Omega$  min.
- Contact resistance variation: 1% or 3 $\Omega$  max.
- Absolute min. resistance: 1% or 2 $\Omega$  max.
- Power rating: 0.25W @ 85°C (300V max.)

| Qty.  | 1      | 10     | 50     | 100    |
|-------|--------|--------|--------|--------|
| Price | \$3.79 | \$1.99 | \$1.69 | \$2.59 |

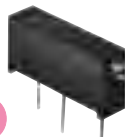
| Part No. | Product No.                   | Ohms |
|----------|-------------------------------|------|
| 696191   | 3214W-1-201E $\blacktriangle$ | 200  |
| 696167   | 3214W-1-102E $\blacktriangle$ | 1k   |
| 696204   | 3214W-1-202E $\blacktriangle$ | 2k   |
| 696221   | 3214W-1-502E $\blacktriangle$ | 5k   |
| 696175   | 3214W-1-103E $\blacktriangle$ | 10k  |
| 696212   | 3214W-1-203E $\blacktriangle$ | 20k  |
| 696183   | 3214W-1-104E $\blacktriangle$ | 100k |

## 3/4" Rectangular, Multi-Turn Sealed Cermet Trimming Side Adjust ( $\pm 10\%$ )

### 3009P Series – 3/4W, Y-layout solder pins

- Resistance tolerance:  $\pm 10\%$
- 15 turns nominal
- Insulation resistance: 100M $\Omega$  min. (500VDC)
- Contact resistance variation: 1% or 1 $\Omega$  max.
- Absolute min. resistance: 1% or 2 $\Omega$  max.
- Power rating: 0.75W @ 70°C (400V max.)

**NEW**



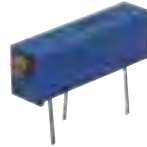
| Part No. | Product No.                  | Ohms    | 1      | 10     | 50     |
|----------|------------------------------|---------|--------|--------|--------|
| 696124   | 3009P-1-103 $\blacktriangle$ | 10k ... | \$1.95 | \$1.79 | \$1.75 |

$\blacktriangle$  This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

## 3/4" Rectangular Multi-Turn Cermet Trimming Side Adjustment ( $\pm 10\%$ )

### 3006P Series, 3/4W, Y Layout Solder Pins

- Resistance tolerance:  $\pm 10\%$
- 15 turns nominal
- Insulation resistance: (500VDC) 1,000M $\Omega$  min.
- Contact resistance variation: 1% or 1 $\Omega$  max.
- Absolute min. resistance: 1% or 2 $\Omega$  max.
- Power rating: 0.75W @ 70°C (300V max.)



| Qty.  | 1      | 10     | 50     | 100    |
|-------|--------|--------|--------|--------|
| Price | \$1.49 | \$1.35 | \$1.25 | \$1.09 |

| Part No. | Product No.                  | Ohms |
|----------|------------------------------|------|
| 695990   | 3006P-1-101 $\blacktriangle$ | 100  |
| 696044   | 3006P-1-201 $\blacktriangle$ | 200  |
| 696087   | 3006P-1-501 $\blacktriangle$ | 500  |
| 696001   | 3006P-1-102 $\blacktriangle$ | 1k   |
| 696052   | 3006P-1-202 $\blacktriangle$ | 2k   |
| 696095   | 3006P-1-502 $\blacktriangle$ | 5k   |
| 696010   | 3006P-1-103 $\blacktriangle$ | 10k  |
| 696061   | 3006P-1-203 $\blacktriangle$ | 20k  |
| 696108   | 3006P-1-503 $\blacktriangle$ | 50k  |
| 696028   | 3006P-1-104 $\blacktriangle$ | 100k |
| 696079   | 3006P-1-204 $\blacktriangle$ | 200k |
| 696116   | 3006P-1-504 $\blacktriangle$ | 500k |
| 696036   | 3006P-1-105 $\blacktriangle$ | 1M   |

## 1/4" Rectangular, Multi-Turn Sealed Cermet Trimming Top Adjust ( $\pm 10\%$ )

### 3262W – 1/4W, Y-layout solder pins

- Resistance tolerance:  $\pm 10\%$
- 12 turns nominal
- Insulation resistance: 1000M $\Omega$  min. (500VDC)
- Contact resistance variation: 1% or 1 $\Omega$  max.
- Absolute min. resistance: 1% or 2 $\Omega$  max.
- Power rating: 0.25W @ 85°C (300V max.)



**NEW**

| Part No. | Product No.                  | Ohms    | 1       | 10      | 50      |
|----------|------------------------------|---------|---------|---------|---------|
| 696335   | 3262W-1-103 $\blacktriangle$ | 10k ... | \$11.95 | \$11.19 | \$10.23 |

## 1/4" Square SMD, Multi-Turn Sealed Cermet Trimming Top Adjust ( $\pm 10\%$ )

### 3269P Series – 1/4W, 1/4" square SMD

- Resistance tolerance:  $\pm 10\%$
- 12 turns nominal
- Insulation resistance: 1000M $\Omega$  min. (500VDC)
- Contact resistance variation: 3% or 3 $\Omega$  max.
- Absolute min. resistance: 1% or 2 $\Omega$  max.
- Power rating: 0.25W @ 85°C (300V max.)



**NEW**

| Part No. | Product No.                  | Ohms    | 1      | 10     | 50     |
|----------|------------------------------|---------|--------|--------|--------|
| 696554   | 3269P-1-103 $\blacktriangle$ | 10k ... | \$3.15 | \$3.02 | \$2.88 |

## 1/4" Square, Multi-Turn Trimming Side Adjustment ( $\pm 10\%$ )

- 1/4 Watt
- Resistance tolerance:  $\pm 10\%$
- Y-layout solder pins
- Sealed cermet
- 12 turns nominal
- Insulation resistance: (500VDC) 1,000M $\Omega$  min.
- Contact resistance variation: 3% or 3 $\Omega$  max.
- Absolute min. resistance: 1% or 2 $\Omega$  max.
- Power rating: 0.25W @ 70°C (300V max.)



| Qty.  | 1      | 10     | 50     | 100    |
|-------|--------|--------|--------|--------|
| Price | \$2.79 | \$2.39 | \$2.32 | \$2.24 |

### 3266X Series

| Part No. | Product No.                  | Ohms |
|----------|------------------------------|------|
| 696520   | 3266X-1-501 $\blacktriangle$ | 500  |
| 696474   | 3266X-1-102 $\blacktriangle$ | 1k   |
| 696503   | 3266X-1-202 $\blacktriangle$ | 2k   |
| 696538   | 3266X-1-502 $\blacktriangle$ | 5k   |
| 696482   | 3266X-1-103 $\blacktriangle$ | 10k  |
| 696511   | 3266X-1-203 $\blacktriangle$ | 20k  |
| 696546   | 3266X-1-503 $\blacktriangle$ | 50k  |
| 696491   | 3266X-1-104 $\blacktriangle$ | 100k |

| Qty.  | 1      | 10     | 50     | 100    |
|-------|--------|--------|--------|--------|
| Price | \$2.85 | \$2.45 | \$2.32 | \$2.24 |

### 3266W Series

| Part No. | Product No.                  | Ohms |
|----------|------------------------------|------|
| 696343   | 3266W-1-101 $\blacktriangle$ | 100  |
| 696394   | 3266W-1-201 $\blacktriangle$ | 200  |
| 696431   | 3266W-1-501 $\blacktriangle$ | 500  |
| 696351   | 3266W-1-102 $\blacktriangle$ | 1k   |
| 696407   | 3266W-1-202 $\blacktriangle$ | 2k   |
| 696440   | 3266W-1-502 $\blacktriangle$ | 5k   |
| 696360   | 3266W-1-103 $\blacktriangle$ | 10k  |
| 696415   | 3266W-1-203 $\blacktriangle$ | 20k  |
| 696458   | 3266W-1-503 $\blacktriangle$ | 50k  |
| 696378   | 3266W-1-104 $\blacktriangle$ | 100k |
| 696423   | 3266W-1-204 $\blacktriangle$ | 200k |
| 696466   | 3266W-1-504 $\blacktriangle$ | 500k |
| 696386   | 3266W-1-105 $\blacktriangle$ | 1M   |

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- Low core loss • Low cost • High current capacity
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- V = vertical mount; H = horizontal mount
- See technical datasheets on [www.Jameco.com](http://www.Jameco.com) for complete specifications



Horizontal Vertical

### 2100 Series Equivalents

| Part No. | Cross Ref. No. | L (µH) @ 1kHz | IDC max. (A) | DCR max. (Ω) | Lead Spa. (in) | Lead Dia. (in) | Pricing |        |     |
|----------|----------------|---------------|--------------|--------------|----------------|----------------|---------|--------|-----|
|          |                |               |              |              |                |                | 1       | 10     | 100 |
| 371741   | 2101-V         | 10.0          | 10.8         | 0.006        | 0.34           | 0.053          | \$1.69  | \$1.03 | .74 |
| 371506   | 2101-H         | 10.0          | 10.8         | 0.006        | 0.77           | 0.053          | 1.69    | 1.03   | .74 |
| 371750   | 2102-V         | 12.0          | 10.3         | 0.007        | 0.34           | 0.053          | 1.69    | 1.04   | .74 |
| 371514   | 2102-H         | 12.0          | 10.3         | 0.007        | 0.77           | 0.053          | 1.69    | 1.04   | .74 |
| 371769   | 2103-V         | 15.0          | 7.7          | 0.012        | 0.33           | 0.042          | 1.69    | 1.04   | .74 |
| 371522   | 2103-H         | 15.0          | 7.7          | 0.012        | 0.76           | 0.042          | 1.69    | 1.04   | .74 |
| 371776   | 2104-V         | 18.0          | 7.4          | 0.013        | 0.33           | 0.042          | 1.69    | 1.04   | .74 |
| 371531   | 2104-H         | 18.0          | 7.4          | 0.013        | 0.76           | 0.042          | 1.69    | 1.04   | .74 |
| 371784   | 2105-V         | 22.0          | 7.0          | 0.015        | 0.33           | 0.042          | 1.69    | 1.04   | .74 |
| 371549   | 2105-H         | 22.0          | 7.0          | 0.015        | 0.76           | 0.042          | 1.69    | 1.04   | .74 |
| 371792   | 2106-V         | 27.0          | 5.3          | 0.026        | 0.32           | 0.034          | 1.69    | 1.04   | .74 |
| 371557   | 2106-H         | 27.0          | 5.3          | 0.026        | 0.75           | 0.034          | 1.69    | 1.04   | .74 |
| 371805   | 2107-V         | 33.0          | 5.0          | 0.029        | 0.32           | 0.034          | 1.69    | 1.04   | .74 |
| 371565   | 2107-H         | 33.0          | 5.0          | 0.029        | 0.75           | 0.034          | 1.69    | 1.04   | .74 |
| 371813   | 2108-V         | 39.0          | 4.8          | 0.032        | 0.32           | 0.034          | 1.69    | 1.04   | .74 |
| 371573   | 2108-H         | 39.0          | 4.8          | 0.032        | 0.75           | 0.034          | 1.69    | 1.04   | .74 |
| 371822   | 2109-V         | 47.0          | 3.6          | 0.055        | 0.31           | 0.027          | 1.69    | 1.04   | .74 |
| 371581   | 2109-H         | 47.0          | 3.6          | 0.055        | 0.75           | 0.027          | 1.69    | 1.04   | .74 |
| 371830   | 2110-V         | 56.0          | 3.4          | 0.060        | 0.31           | 0.027          | 1.69    | 1.04   | .74 |
| 371590   | 2110-H         | 56.0          | 3.4          | 0.060        | 0.75           | 0.027          | 1.69    | 1.04   | .74 |
| 371848   | 2111-V         | 68.0          | 3.3          | 0.067        | 0.31           | 0.027          | 1.69    | 1.04   | .74 |
| 371602   | 2111-H         | 68.0          | 3.3          | 0.067        | 0.75           | 0.027          | 1.69    | 1.04   | .74 |
| 371856   | 2112-V         | 100.0         | 2.4          | 0.13         | 0.31           | 0.022          | 1.69    | 1.04   | .74 |
| 371611   | 2112-H         | 100.0         | 2.4          | 0.13         | 0.74           | 0.022          | 1.69    | 1.04   | .74 |
| 371864   | 2113-V         | 120.0         | 2.2          | 0.15         | 0.31           | 0.022          | 1.69    | 1.04   | .74 |
| 371629   | 2113-H         | 120.0         | 2.2          | 0.15         | 0.74           | 0.022          | 1.69    | 1.04   | .74 |
| 371872   | 2114-V         | 150.0         | 3.4          | 0.062        | 0.35           | 0.034          | 1.69    | 1.04   | .74 |
| 371637   | 2114-H         | 150.0         | 3.4          | 0.062        | 0.79           | 0.034          | 1.69    | 1.04   | .74 |
| 371881   | 2115-V         | 180.0         | 2.6          | 0.11         | 0.34           | 0.027          | 1.69    | 1.04   | .74 |
| 371645   | 2115-H         | 180.0         | 2.6          | 0.11         | 0.77           | 0.027          | 1.69    | 1.04   | .74 |
| 371899   | 2116-V         | 220.0         | 2.4          | 0.12         | 0.34           | 0.027          | 1.69    | 1.04   | .74 |
| 371653   | 2116-H         | 220.0         | 2.4          | 0.12         | 0.77           | 0.027          | 1.69    | 1.04   | .74 |
| 371901   | 2117-V         | 270.0         | 1.8          | 0.21         | 0.33           | 0.022          | 1.89    | 1.17   | .84 |
| 371661   | 2117-H         | 270.0         | 1.8          | 0.21         | 0.76           | 0.022          | 1.89    | 1.17   | .84 |
| 371910   | 2118-V         | 330.0         | 1.7          | 0.23         | 0.33           | 0.022          | 1.89    | 1.17   | .84 |
| 371670   | 2118-H         | 330.0         | 1.7          | 0.23         | 0.76           | 0.022          | 1.89    | 1.17   | .84 |
| 371928   | 2119-V         | 390.0         | 1.7          | 0.25         | 0.33           | 0.022          | 1.89    | 1.17   | .84 |
| 371688   | 2119-H         | 390.0         | 1.7          | 0.25         | 0.76           | 0.022          | 1.89    | 1.17   | .84 |
| 371936   | 2120-V         | 470.0         | 1.6          | 0.28         | 0.35           | 0.022          | 1.89    | 1.17   | .84 |
| 371696   | 2120-H         | 470.0         | 1.6          | 0.28         | 0.76           | 0.022          | 1.89    | 1.17   | .84 |
| 371944   | 2121-V         | 560.0         | 1.5          | 0.30         | 0.35           | 0.022          | 1.89    | 1.17   | .84 |
| 371709   | 2121-H         | 560.0         | 1.5          | 0.30         | 0.79           | 0.022          | 1.89    | 1.17   | .84 |
| 371952   | 2122-V         | 680.0         | 1.4          | 0.33         | 0.35           | 0.022          | 1.89    | 1.17   | .84 |
| 371717   | 2122-H         | 680.0         | 1.4          | 0.33         | 0.79           | 0.022          | 1.89    | 1.17   | .84 |
| 371961   | 2123-V         | 820.0         | 1.4          | 0.37         | 0.35           | 0.022          | 1.89    | 1.17   | .84 |
| 371725   | 2123-H         | 820.0         | 1.4          | 0.37         | 0.79           | 0.022          | 1.89    | 1.17   | .84 |
| 371979   | 2124-V         | 1000.0        | 1.3          | 0.40         | 0.37           | 0.022          | 1.89    | 1.17   | .84 |
| 371733   | 2124-H         | 1000.0        | 1.3          | 0.40         | 0.81           | 0.022          | 1.89    | 1.17   | .84 |

### 2200 Series Equivalents

|        |        |      |      |       |      |       |        |        |       |
|--------|--------|------|------|-------|------|-------|--------|--------|-------|
| 371266 | 2201-V | 10.0 | 12.5 | 0.007 | 0.46 | 0.053 | \$2.15 | \$1.31 | \$.93 |
| 371021 | 2201-H | 10.0 | 12.5 | 0.007 | 0.88 | 0.053 | 2.15   | 1.31   | .93   |
| 371274 | 2202-V | 12.0 | 12.0 | 0.008 | 0.46 | 0.053 | 2.15   | 1.31   | .93   |
| 371039 | 2202-H | 12.0 | 12.0 | 0.008 | 0.88 | 0.053 | 2.15   | 1.31   | .93   |
| 371282 | 2203-V | 15.0 | 11.3 | 0.008 | 0.46 | 0.053 | 2.15   | 1.31   | .93   |
| 371047 | 2203-H | 15.0 | 11.3 | 0.008 | 0.88 | 0.053 | 2.15   | 1.31   | .93   |
| 371291 | 2204-V | 18.0 | 10.8 | 0.009 | 0.46 | 0.053 | 2.15   | 1.31   | .93   |
| 371055 | 2204-H | 18.0 | 10.8 | 0.009 | 0.88 | 0.053 | 2.15   | 1.31   | .93   |
| 371303 | 2205-V | 22.0 | 10.3 | 0.010 | 0.46 | 0.053 | 2.15   | 1.31   | .93   |
| 371063 | 2205-H | 22.0 | 10.3 | 0.010 | 0.88 | 0.053 | 2.15   | 1.31   | .93   |

### 2200 Series Equivalents (Continued)

| Part No. | Cross Ref. No. | L (µH) @ 1kHz | IDC max. (A) | DCR max. (Ω) | Lead Spa. (in) | Lead Dia. (in) | Pricing |        |       |
|----------|----------------|---------------|--------------|--------------|----------------|----------------|---------|--------|-------|
|          |                |               |              |              |                |                | 1       | 10     | 100   |
| 371311   | 2206-V         | 27.0          | 9.8          | 0.011        | 0.46           | 0.053          | \$2.15  | \$1.31 | \$.93 |
| 371071   | 2206-H         | 27.0          | 9.8          | 0.011        | 0.88           | 0.053          | 2.15    | 1.31   | .93   |
| 371320   | 2207-V         | 33.0          | 7.4          | 0.020        | 0.45           | 0.042          | 2.15    | 1.31   | .93   |
| 371080   | 2207-H         | 33.0          | 7.4          | 0.020        | 0.87           | 0.042          | 2.15    | 1.31   | .93   |
| 371338   | 2208-V         | 39.0          | 7.1          | 0.022        | 0.45           | 0.042          | 2.15    | 1.31   | .93   |
| 371098   | 2208-H         | 39.0          | 7.1          | 0.022        | 0.87           | 0.042          | 2.15    | 1.31   | .93   |
| 371346   | 2209-V         | 47.0          | 6.7          | 0.024        | 0.45           | 0.042          | 2.15    | 1.31   | .93   |
| 371101   | 2209-H         | 47.0          | 6.7          | 0.024        | 0.87           | 0.042          | 2.15    | 1.31   | .93   |
| 371354   | 2210-V         | 56.0          | 6.4          | 0.026        | 0.45           | 0.042          | 2.15    | 1.31   | .93   |
| 371119   | 2210-H         | 56.0          | 6.4          | 0.026        | 0.87           | 0.042          | 2.15    | 1.31   | .93   |
| 371362   | 2211-V         | 68.0          | 4.9          | 0.046        | 0.44           | 0.034          | 2.15    | 1.31   | .93   |
| 371127   | 2211-H         | 68.0          | 4.9          | 0.046        | 0.86           | 0.034          | 2.15    | 1.31   | .93   |
| 371371   | 2212-V         | 100.0         | 4.4          | 0.056        | 0.44           | 0.034          | 2.15    | 1.31   | .93   |
| 371135   | 2212-H         | 100.0         | 4.4          | 0.056        | 0.86           | 0.034          | 2.15    | 1.31   | .93   |
| 371389   | 2213-V         | 120.0         | 3.3          | 0.098        | 0.44           | 0.027          | 2.15    | 1.31   | .93   |
| 371143   | 2213-H         | 120.0         | 3.3          | 0.098        | 0.86           | 0.027          | 2.15    | 1.31   | .93   |
| 371397   | 2214-V         | 150.0         | 3.1          | 0.11         | 0.44           | 0.027          | 2.15    | 1.31   | .93   |
| 371151   | 2214-H         | 150.0         | 3.1          | 0.11         | 0.86           | 0.027          | 2.15    | 1.31   | .93   |
| 371400   | 2215-V         | 180.0         | 3.8          | 0.075        | 0.48           | 0.034          | 2.15    | 1.31   | .93   |
| 371160   | 2215-H         | 180.0         | 3.8          | 0.075        | 0.90           | 0.034          | 2.15    | 1.31   | .93   |
| 371418   | 2216-V         | 220.0         | 3.6          | 0.083        | 0.48           | 0.034          | 2.15    | 1.31   | .93   |
| 371178   | 2216-H         | 220.0         | 3.6          | 0.083        | 0.90           | 0.034          | 2.15    | 1.31   | .93   |
| 371426   | 2217-V         | 270.0         | 3.4          | 0.092        | 0.48           | 0.034          | 2.35    | 1.45   | 1.03  |
| 371186   | 2217-H         | 270.0         | 3.4          | 0.092        | 0.90           | 0.034          | 2.35    | 1.45   | 1.03  |
| 371434   | 2218-V         | 330.0         | 3.3          | 0.10         | 0.48           | 0.034          | 2.35    | 1.45   | 1.03  |
| 371194   | 2218-H         | 330.0         | 3.3          | 0.10         | 0.90           | 0.034          | 2.35    | 1.45   | 1.03  |
| 371442   | 2219-V         | 390.0         | 2.5          | 0.18         | 0.46           | 0.027          | 2.35    | 1.45   | 1.03  |
| 371207   | 2219-H         | 390.0         | 2.5          | 0.18         | 0.88           | 0.027          | 2.35    | 1.45   | 1.03  |
| 371451   | 2220-V         | 470.0         | 2.3          | 0.19         | 0.46           | 0.027          | 2.35    | 1.45   | 1.03  |
| 371215   | 2220-H         | 470.0         | 2.3          | 0.19         | 0.88           | 0.027          | 2.35    | 1.45   | 1.03  |
| 371469   | 2221-V         | 560.0         | 2.2          | 0.21         | 0.46           | 0.027          | 2.35    | 1.45   | 1.03  |
| 371223   | 2221-H         | 560.0         | 2.2          | 0.21         | 0.88           | 0.027          | 2.35    | 1.45   | 1.03  |
| 371477   | 2222-V         | 680.0         | 2.1          | 0.23         | 0.49           | 0.027          | 2.35    | 1.45   | 1.03  |
| 371231   | 2222-H         | 680.0         | 2.1          | 0.23         | 0.91           | 0.027          | 2.35    | 1.45   | 1.03  |
| 371485   | 2223-V         | 820.0         | 2.0          | 0.26         | 0.49           | 0.027          | 2.35    | 1.45   | 1.03  |
| 371240   | 2223-H         | 820.0         | 2.0          | 0.26         | 0.91           | 0.027          | 2.35    | 1.45   | 1.03  |
| 371493   | 2224-V         | 1000.0        | 1.9          | 0.28         | 0.49           | 0.027          | 2.35    | 1.45   | 1.03  |
| 371258   | 2224-H         | 1000.0        | 1.9          | 0.28         | 0.91           | 0.027          | 2.35    | 1.45   | 1.03  |

### 2300 Series Equivalents

|        |        |      |      |       |      |       |        |        |        |
|--------|--------|------|------|-------|------|-------|--------|--------|--------|
| 386901 | 2301-V | 10.0 | 20.0 | 0.005 | 0.56 | 0.066 | \$2.19 | \$1.49 | \$1.13 |
| 386361 | 2301-H | 10.0 | 20.0 | 0.005 | 1.18 | 0.066 | 2.19   | 1.49   | 1.13   |
| 386935 | 2302-V | 12.0 | 19.1 | 0.005 | 0.56 | 0.066 | 2.19   | 1.49   | 1.13   |
| 386396 | 2302-H | 12.0 | 19.1 | 0.005 | 1.18 | 0.066 | 2.19   | 1.49   | 1.13   |
| 386951 | 2303-V | 15.0 | 18.0 | 0.006 | 0.56 | 0.066 | 2.19   | 1.49   | 1.13   |
| 386425 | 2303-H | 15.0 | 18.0 | 0.006 | 1.18 | 0.066 | 2.19   | 1.49   | 1.13   |
| 386978 | 2304-V | 18.0 | 17.2 | 0.006 | 0.56 | 0.066 | 2.19   | 1.49   | 1.13   |
| 386441 | 2304-H | 18.0 | 17.2 | 0.006 | 1.18 | 0.066 | 2.19   | 1.49   | 1.13   |
| 387006 | 2305-V | 22.0 | 16.4 | 0.007 | 0.56 | 0.066 | 2.19   | 1.49   | 1.13   |
| 386468 | 2305-H | 22.0 | 16.4 | 0.007 | 1.18 | 0.066 | 2.19   | 1.49   | 1.13   |
| 387022 | 2306-V | 27.0 | 15.6 | 0.008 | 0.56 | 0.066 | 2.19   | 1.49   | 1.13   |
| 386484 | 2306-H | 27.0 | 15.6 | 0.008 | 1.18 | 0.066 | 2.19   | 1.49   | 1.13   |
| 387049 | 2307-V | 33.0 | 11.7 | 0.013 | 0.53 | 0.053 | 2.19   | 1.49   | 1.13   |
| 386505 | 2307-H | 33.0 | 11.7 | 0.013 | 1.14 | 0.053 | 2.19   | 1.49   | 1.13   |
| 387065 | 2308-V | 39.0 | 11.2 | 0.014 | 0.53 | 0.053 | 2.19   | 1.49   | 1.13   |
| 386521 | 2308-H | 39.0 | 11.2 | 0.014 | 1.14 | 0.053 | 2.19   | 1.49   |        |



JAMECO ValuePro

## High Current Toroid Inductors (Continued)

### 2300 Series Equivalents

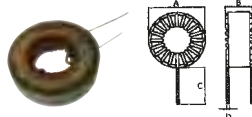
| Part No. | Cross Ref. No. | L (μH) @ 1kHz | IDC max. (A) | DCR max. (Ω) | Lead Spa. (in) | Lead Dia. (in) | Pricing |        |        |
|----------|----------------|---------------|--------------|--------------|----------------|----------------|---------|--------|--------|
|          |                |               |              |              |                |                | 1       | 10     | 100    |
| 386652   | 2314-H         | 150.0         | 5.0          | 0.071        | 1.12           | 0.034          | \$2.19  | \$1.49 | \$1.13 |
| 387233   | 2315-V         | 180.0         | 4.8          | 0.078        | 0.51           | 0.034          | 2.19    | 1.49   | 1.13   |
| 386679   | 2315-H         | 180.0         | 4.8          | 0.078        | 1.12           | 0.034          | 2.19    | 1.49   | 1.13   |
| 387268   | 2316-V         | 220.0         | 5.8          | 0.054        | 0.56           | 0.042          | 2.19    | 1.49   | 1.13   |
| 386695   | 2316-H         | 220.0         | 5.8          | 0.054        | 1.17           | 0.042          | 2.19    | 1.49   | 1.13   |
| 387284   | 2317-V         | 270.0         | 5.5          | 0.060        | 0.56           | 0.042          | 2.19    | 1.49   | 1.13   |
| 386724   | 2317-H         | 270.0         | 5.5          | 0.060        | 1.17           | 0.042          | 2.19    | 1.49   | 1.13   |
| 387313   | 2318-V         | 330.0         | 5.2          | 0.067        | 0.56           | 0.042          | 2.19    | 1.49   | 1.13   |
| 386741   | 2318-H         | 330.0         | 5.2          | 0.067        | 1.17           | 0.042          | 2.19    | 1.49   | 1.13   |
| 387330   | 2319-V         | 390.0         | 5.0          | 0.072        | 0.56           | 0.042          | 2.19    | 1.49   | 1.13   |
| 386767   | 2319-H         | 390.0         | 5.0          | 0.072        | 1.17           | 0.042          | 2.19    | 1.49   | 1.13   |

## High Current Toroid Inductors

### 5700 Series Equivalents

- Low radiation • Low core loss
- High current capacity
- Size: A = 22.22mm max.; B = 11.09mm max.  
C = 15.0±1.0mm; D = 1.2±0.5mm
- See page 244 for EMI suppression cores
- See technical datasheets on [www.Jameco.com](http://www.Jameco.com) for complete specifications

Quantity SAVE



| Part No. | Cross Ref. No. | L (μH) | IDC max. (A) | L min. @ IDC | Pricing |        |        |        |        |
|----------|----------------|--------|--------------|--------------|---------|--------|--------|--------|--------|
|          |                |        |              |              | 1       | 10     | 25     | 50     | 100    |
| 208258   | 5701           | 10     | 11.0         | 5            | \$3.99  | \$3.05 | \$2.74 | \$2.26 | \$1.70 |
| 208303   | 5707           | 75     | 5.0          | 40           | 4.35    | 3.75   | 3.37   | 2.78   | 2.09   |
| 208274   | 5703           | 125    | 2.75         | 70           | 3.99    | 3.05   | 2.74   | 2.26   | 1.70   |
| 208320   | 5712           | 150    | 4.75         | 85           | 4.35    | 3.75   | 3.19   | 2.55   | 1.91   |
| 208282   | 5704           | 275    | 2.0          | 150          | 3.99    | 3.05   | 2.74   | 2.26   | 1.70   |
| 208291   | 5705           | 450    | 1.5          | 250          | 4.35    | 3.28   | 2.95   | 2.44   | 2.21   |

TRIAD

## Inductors

- Lead wires
- High pot tested @ 1500Vrms
- Inductance tolerance: -20% to +50%

### U Case Type

- Lug terminals

| Part No. | Product No. | DC Current (A) | Inductance (H) | Resistance (Ω) | Dimensions (H" x W" x L") | Pricing |         |         |
|----------|-------------|----------------|----------------|----------------|---------------------------|---------|---------|---------|
|          |             |                |                |                |                           | 1       | 10      | 100     |
| 618329   | C-59U       | 12.5           | .01            | .10            | 3.5 x 4.1 x 3             | \$38.95 | \$30.46 | \$28.94 |
| 618337   | C-80U       | 20/40          | .024/.006      | .10/.025       | 5.3 x 4.6 x 5.5           | 92.15   | 90.89   | 86.35   |

See Complete Inductor Offering at [www.Jameco.com/Prod/TriadInductors](http://www.Jameco.com/Prod/TriadInductors)

TRIAD

## High Current Rod Core Inductors

- Rated current @ 40°C temperature rise

Fig. 1



Fig. 2



Fig. 1

| Part No. | Product No. | Inductance (mH) ±15% | DC Rated Current (A) | DCR (Ω) max. | Lead Diameter | Pricing |        |        |
|----------|-------------|----------------------|----------------------|--------------|---------------|---------|--------|--------|
|          |             |                      |                      |              |               | 1       | 10     | 100    |
| 629466   | Firch-2     | 3.05                 | 9.7                  | 7.3          | 0.045"        | \$2.35  | \$1.53 | \$1.41 |
| 629482   | Firch-6     | 7.22                 | 4.8                  | 26.1         | 0.028"        | 2.35    | 1.53   | 1.41   |

Fig. 2

| Part No. | Product No. | Inductance 10% | DC Rated Current (A) | DCR (Ω) max. | Pricing |        |        |
|----------|-------------|----------------|----------------------|--------------|---------|--------|--------|
|          |             |                |                      |              | 1       | 10     | 100    |
| 630256   | RC-10       | 100μH          | 2.0                  | 0.098        | \$2.35  | \$2.14 | \$1.85 |
| 630264   | RC-11       | 75μH           | 2.5                  | 0.070        | 2.35    | 2.15   | 1.91   |
| 630301   | RC-7        | 450μH          | 1.0                  | 0.420        | 2.35    | 1.70   | 1.56   |

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| Part No. | Cross Ref. No. | L (μH) @ 1kHz | IDC max. (A) | DCR max. (Ω) | Lead Spa. (in) | Lead Dia. (in) | Pricing |        |        |
|----------|----------------|---------------|--------------|--------------|----------------|----------------|---------|--------|--------|
|          |                |               |              |              |                |                | 1       | 10     | 100    |
| 387364   | 2320-V         | 470.0         | 3.8          | 0.13         | 0.54           | 0.034          | \$2.19  | \$1.49 | \$1.13 |
| 386783   | 2320-H         | 470.0         | 3.8          | 0.13         | 1.16           | 0.034          | 2.19    | 1.49   | 1.13   |
| 387381   | 2321-V         | 560.0         | 3.6          | 0.14         | 0.54           | 0.034          | 2.19    | 1.49   | 1.13   |
| 386812   | 2321-H         | 560.0         | 3.6          | 0.14         | 1.16           | 0.034          | 2.19    | 1.49   | 1.13   |
| 387410   | 2322-V         | 680.0         | 3.4          | 0.15         | 0.54           | 0.034          | 2.19    | 1.49   | 1.13   |
| 386839   | 2322-H         | 680.0         | 3.4          | 0.15         | 1.16           | 0.034          | 2.19    | 1.49   | 1.13   |
| 387436   | 2323-V         | 820.0         | 2.6          | 0.27         | 0.53           | 0.027          | 2.19    | 1.49   | 1.13   |
| 386855   | 2323-H         | 820.0         | 2.6          | 0.27         | 1.14           | 0.027          | 2.19    | 1.49   | 1.13   |
| 388041   | 2324-V         | 1000.0        | 2.4          | 0.30         | 0.53           | 0.027          | 2.19    | 1.49   | 1.13   |
| 386880   | 2324-H         | 1000.0        | 2.4          | 0.30         | 1.14           | 0.027          | 2.19    | 1.49   | 1.13   |

JAMECO ValuePro

## Chip Inductors (SMD)

- Ceramic core, wire wound for superior reliability
- High self-resonant frequency
- Stable electrical characteristics
- Flat top surface for automated pick and place



PM0805/PM1008

### PM0805 Series Equivalents

| Part No. | Cross Ref. No. | L (nH) | Q (min.) | SRF (MHz) min. | DCR Ω | Current (mA) | Pricing |         |         |
|----------|----------------|--------|----------|----------------|-------|--------------|---------|---------|---------|
|          |                |        |          |                |       |              | 1       | 10      | 100     |
| 663592   | 0805-2N2M      | 2.2    | 15       | 6000           | 0.08  | 600          | \$0.25  | \$0.225 | \$0.195 |
| 663605   | 0805-3N3M      | 3.3    | 35       | 6000           | 0.08  | 600          | .25     | .225    | .195    |
| 663613   | 0805-6N6M      | 6.8    | 50       | 5500           | 0.11  | 600          | .25     | .225    | .195    |
| 663621   | 0805-8N2M      | 8.2    | 35       | 4700           | 0.12  | 600          | .25     | .225    | .195    |
| 663630   | 0805-12NM      | 12.0   | 50       | 4000           | 0.15  | 600          | .25     | .225    | .195    |
| 663648   | 0805-18NM      | 18.0   | 50       | 3300           | 0.2   | 600          | .25     | .225    | .195    |
| 663656   | 0805-27NM      | 27.0   | 55       | 2500           | 0.25  | 500          | .25     | .225    | .195    |
| 663664   | 0805-33NM      | 33.0   | 60       | 2050           | 0.27  | 500          | .25     | .225    | .195    |
| 663672   | 0805-39NM      | 39.0   | 60       | 2000           | 0.29  | 500          | .25     | .225    | .195    |
| 663681   | 0805-47NM      | 47.0   | 60       | 1650           | 0.31  | 500          | .25     | .225    | .195    |
| 663699   | 0805-56NK      | 56.0   | 60       | 1550           | 0.34  | 500          | .25     | .225    | .195    |
| 663701   | 0805-68NK      | 68.0   | 60       | 1450           | 0.38  | 500          | .25     | .225    | .195    |
| 663710   | 0805-82NK      | 82.0   | 60       | 1300           | 0.42  | 400          | .25     | .225    | .195    |

### PM1008 Series Equivalents

| Part No. | Cross Ref. No. | L (nH) | Q (min.) | SRF (MHz) min. | DCR Ω | Current (mA) | Pricing |         |         |
|----------|----------------|--------|----------|----------------|-------|--------------|---------|---------|---------|
|          |                |        |          |                |       |              | 1       | 10      | 100     |
| 663736   | 1008-10NM      | 10     | 50       | 4100           | 0.08  | 1000         | \$0.25  | \$0.166 | \$0.152 |
| 663744   | 1008-12NM      | 12     | 50       | 3300           | 0.09  | 1000         | .25     | .166    | .152    |
| 663752   | 1008-15NM      | 15     | 50       | 2500           | 0.10  | 1000         | .25     | .166    | .152    |
| 663761   | 1008-18NM      | 18     | 50       | 2500           | 0.11  | 1000         | .25     | .166    | .152    |
| 663779   | 1008-22NM      | 22     | 55       | 2400           | 0.12  | 1000         | .25     | .166    | .152    |
| 663787   | 1008-27NM      | 27     | 55       | 1600           | 0.13  | 1000         | .25     | .166    | .152    |
| 663795   | 1008-33NM      | 33     | 60       | 1600           | 0.14  | 1000         | .25     | .166    | .152    |
| 663808   | 1008-39NM      | 39     | 60       | 1500           | 0.15  | 1000         | .25     | .166    | .152    |
| 663816   | 1008-47NM      | 47     | 65       | 1500           | 0.16  | 1000         | .25     | .166    | .152    |
| 663824   | 1008-56NK      | 56     | 65       | 1300           | 0.18  | 1000         | .25     | .166    | .152    |
| 663832   | 1008-68NK      | 68     | 65       | 1300           | 0.20  | 1000         | .25     | .166    | .152    |
| 663841   | 1008-82NK      | 82     | 60       | 1000           | 0.22  | 1000         | .25     | .166    | .152    |
| 663859   | 1008-R10K      | 100    | 60       | 1000           | 0.56  | 650          | .25     | .166    | .152    |
| 663867   | 1008-R12K      | 120    | 60       | 950            | 0.63  | 650          | .25     | .166    | .152    |
| 663875   | 1008-R15K      | 150    | 45       | 850            | 0.70  | 580          | .25     | .166    | .152    |
| 663883   | 1008-R18K      | 180    | 45       | 750            | 0.77  | 620          | .25     | .166    | .152    |
| 663891   | 1008-R22K      | 220    | 45       | 660            | 0.84  | 500          | .25     | .166    | .152    |
| 663904   | 1008-R27K      | 270    | 45       | 600            | 0.91  | 500          | .25     | .166    | .152    |
| 663912   | 1008-R33K      | 330    | 45       | 570            | 1.05  | 450          | .25     | .166    | .152    |
| 663921   | 1008-R39K      | 390    | 45       | 500            | 1.12  | 470          | .25     | .166    | .152    |
| 663939   | 1008-R27K      | 2700   | 22       | 80             | 3.20  | 290          | .25     | .166    | .152    |
| 663947   | 1008-3R3K      | 3300   | 22       | 60             | 3.40  | 290          | .25     | .166    | .152    |
| 663955   | 1008-3R9K      | 3900   | 20       | 60             | 3.60  | 260          | .25     | .166    | .152    |
| 663963   | 1008-4R7K      | 4700   | 18       | 60             | 4.00  | 260          | .25     | .166    | .152    |

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


























- Ceramic core, wire wound for superior reliability
- High self-resonant frequency
- Stable electrical characteristics
- Flat top surface for automated pick and place



PM1210/PM1812


















## PM1210 Series Equivalents

- Molded for high reliability and superior environmental protection
- High resistance to solder heat and moisture
- Ferrite bobbin core

| Part No. | Cross Ref. No.  | L (μH) | Q (min.) | SRF (MHz) min. | DCR Ω max. | Current (mA) | Pricing |        |        |
|----------|---|--------|----------|----------------|------------|--------------|---------|--------|--------|
|          |   |        |          |                |            |              | 1       | 10     | 100    |
| 663971   | 1210-1R0J    | 1.0    | 30       | 120            | 0.70       | 400          | \$.28   | \$.261 | \$.166 |
| 663980   | 1210-1R2J    | 1.2    | 30       | 100            | 0.75       | 390          | .28     | .261   | .166   |
| 663998   | 1210-1R5J    | 1.5    | 30       | 85             | 0.85       | 370          | .28     | .261   | .166   |
| 664000   | 1210-1R8J    | 1.8    | 30       | 80             | 0.90       | 350          | .28     | .261   | .166   |
| 664018   | 1210-2R2J    | 2.2    | 30       | 75             | 1.00       | 320          | .28     | .261   | .166   |
| 664026   | 1210-2R7J    | 2.7    | 30       | 70             | 1.10       | 290          | .28     | .261   | .166   |
| 664034   | 1210-3R3J    | 3.3    | 30       | 60             | 1.20       | 260          | .28     | .261   | .166   |
| 664042   | 1210-3R9J    | 3.9    | 30       | 55             | 1.30       | 250          | .28     | .261   | .166   |
| 664051   | 1210-4R7J    | 4.7    | 30       | 50             | 1.50       | 220          | .28     | .261   | .166   |
| 664069   | 1210-5R6J    | 5.6    | 30       | 45             | 1.60       | 200          | .28     | .261   | .166   |
| 664077   | 1210-6R8J    | 6.8    | 30       | 40             | 1.80       | 180          | .28     | .261   | .166   |
| 664085   | 1210-8R2J    | 8.2    | 30       | 35             | 2.00       | 170          | .28     | .261   | .166   |
| 664093   | 1210-100J    | 10.0   | 30       | 30             | 2.10       | 150          | .28     | .261   | .166   |
| 664106   | 1210-120J   | 12.0   | 30       | 20             | 2.50       | 140          | .28     | .261   | .166   |
| 664114   | 1210-150J  | 15.0   | 30       | 20             | 2.80       | 130          | .28     | .261   | .166   |
| 664122   | 1210-180J  | 18.0   | 30       | 20             | 3.30       | 120          | .28     | .261   | .166   |
| 664131   | 1210-220J  | 22.0   | 30       | 20             | 3.70       | 110          | .28     | .261   | .166   |
| 664149   | 1210-270J  | 27.0   | 30       | 20             | 5.00       | 80           | .28     | .261   | .166   |
| 664157   | 1210-330J  | 33.0   | 30       | 17             | 5.60       | 70           | .28     | .261   | .166   |
| 664165   | 1210-390J  | 39.0   | 30       | 16             | 6.40       | 65           | .28     | .261   | .166   |
| 664173   | 1210-470J  | 47.0   | 30       | 15             | 7.00       | 60           | .28     | .261   | .166   |
| 664181   | 1210-560J  | 56.0   | 30       | 13             | 8.00       | 55           | .28     | .261   | .166   |
| 664190   | 1210-680J  | 68.0   | 30       | 12             | 9.00       | 50           | .28     | .261   | .166   |
| 664202   | 1210-820J  | 82.0   | 30       | 11             | 10.00      | 45           | .28     | .261   | .166   |
| 664211   | 1210-101J  | 100    | 20       | 10             | 10.00      | 40           | .28     | .261   | .166   |
| 664229   | 1210-121J  | 120    | 20       | 10             | 11.00      | 70           | .28     | .261   | .166   |
| 664237   | 1210-151J  | 150    | 20       | 8              | 15.00      | 65           | .28     | .261   | .166   |
| 664245   | 1210-181J  | 180    | 20       | 7              | 17.00      | 60           | .28     | .261   | .166   |
| 664253   | 1210-221J  | 220    | 20       | 7              | 21.00      | 50           | .28     | .261   | .166   |

## PM1812 Series Equivalents





























- Molded construction for high reliability and superior environmental protection
- High resistance to solder heat and moisture

| Part No. | Cross Ref. No.  | L (μH) | Q (min.) | SRF (MHz) min. | DCR Ω max. | Current (mA) | Pricing |        |        |
|----------|---|--------|----------|----------------|------------|--------------|---------|--------|--------|
|          |   |        |          |                |            |              | 1       | 10     | 100    |
| 643014   | 1812-R10K  | 0.10   | 35       | 300            | 0.18       | 800          | \$.25   | \$.225 | \$.176 |
| 643022   | 1812-R12K  | 0.12   | 35       | 280            | 0.20       | 770          | .25     | .225   | .176   |
| 643031   | 1812-R15K  | 0.15   | 35       | 250            | 0.22       | 730          | .25     | .225   | .176   |
| 643049   | 1812-R18K  | 0.18   | 35       | 220            | 0.24       | 700          | .25     | .225   | .176   |
| 643057   | 1812-R22K  | 0.22   | 40       | 200            | 0.25       | 665          | .25     | .225   | .176   |
| 643065   | 1812-R27K  | 0.27   | 40       | 180            | 0.26       | 635          | .25     | .225   | .176   |
| 643073   | 1812-R33K  | 0.33   | 40       | 165            | 0.28       | 605          | .25     | .225   | .176   |
| 643081   | 1812-R39K  | 0.39   | 40       | 150            | 0.30       | 575          | .25     | .225   | .176   |
| 643090   | 1812-R47K  | 0.47   | 40       | 145            | 0.32       | 545          | .25     | .225   | .176   |
| 643102   | 1812-R56K  | 0.56   | 40       | 140            | 0.36       | 520          | .25     | .225   | .176   |
| 643111   | 1812-R68K  | 0.68   | 40       | 135            | 0.40       | 500          | .25     | .225   | .176   |
| 643129   | 1812-R82K  | 0.82   | 40       | 130            | 0.45       | 475          | .25     | .225   | .176   |
| 643137   | 1812-1R0J  | 1.0    | 50       | 100            | 0.50       | 450          | .25     | .225   | .176   |
| 643145   | 1812-1R2J  | 1.2    | 50       | 80             | 0.55       | 430          | .25     | .225   | .176   |
| 643153   | 1812-1R5J  | 1.5    | 50       | 70             | 0.60       | 410          | .25     | .225   | .176   |
| 643161   | 1812-1R8J  | 1.8    | 50       | 60             | 0.65       | 390          | .25     | .225   | .176   |
| 643170   | 1812-2R2J  | 2.2    | 50       | 55             | 0.70       | 380          | .25     | .225   | .176   |
| 643188   | 1812-2R7J  | 2.7    | 50       | 50             | 0.75       | 370          | .25     | .225   | .176   |
| 643196   | 1812-3R3J  | 3.3    | 50       | 45             | 0.80       | 355          | .25     | .225   | .176   |
| 643209   | 1812-3R9J  | 3.9    | 50       | 40             | 0.90       | 330          | .25     | .225   | .176   |
| 643217   | 1812-4R7J  | 4.7    | 50       | 35             | 1.00       | 315          | .25     | .225   | .176   |

## Chip Inductors (SMD) (Continued)

### PM1812 Series Equivalents

- Molded construction for high reliability and superior environmental protection
- High resistance to solder heat and moisture

| Part No. | Cross Ref. No.  | L (μH) | Q (min.) | SRF (MHz) min. | DCR Ω max. | Current (mA) | Pricing |        |        |
|----------|---|--------|----------|----------------|------------|--------------|---------|--------|--------|
|          |   |        |          |                |            |              | 1       | 10     | 100    |
| 643225   | 1812-5R6J    | 5.6    | 50       | 33             | 1.10       | 300          | \$.25   | \$.225 | \$.176 |
| 643233   | 1812-6R8J    | 6.8    | 50       | 27             | 1.20       | 285          | .25     | .225   | .176   |
| 643241   | 1812-8R2J    | 8.2    | 50       | 23             | 1.40       | 270          | .25     | .225   | .176   |
| 643250   | 1812-100J    | 10.0   | 50       | 20             | 1.50       | 250          | .25     | .225   | .176   |
| 643268   | 1812-120J    | 12.0   | 50       | 18             | 2.00       | 225          | .25     | .225   | .176   |
| 643276   | 1812-150J    | 15.0   | 50       | 17             | 2.50       | 200          | .25     | .225   | .176   |
| 643284   | 1812-180J    | 18.0   | 50       | 15             | 2.80       | 190          | .25     | .225   | .176   |
| 643292   | 1812-220J    | 22.0   | 50       | 13             | 3.20       | 180          | .25     | .225   | .176   |
| 643305   | 1812-270J    | 27.0   | 50       | 12             | 3.60       | 170          | .25     | .225   | .178   |
| 643313   | 1812-330J    | 33.0   | 50       | 11             | 4.00       | 160          | .25     | .225   | .176   |
| 643321   | 1812-390J    | 39.0   | 50       | 10             | 4.50       | 150          | .25     | .225   | .176   |
| 643330   | 1812-470J    | 47.0   | 50       | 10             | 5.00       | 140          | .25     | .225   | .176   |
| 643348   | 1812-560J    | 56.0   | 50       | 9              | 5.50       | 135          | .25     | .225   | .176   |
| 643356   | 1812-680J    | 68.0   | 50       | 9              | 6.00       | 130          | .25     | .225   | .176   |
| 643364   | 1812-820J    | 82.0   | 50       | 8              | 7.00       | 120          | .25     | .225   | .176   |
| 643372   | 1812-101J    | 100    | 40       | 8              | 8.00       | 110          | .25     | .225   | .176   |
| 643381   | 1812-121J    | 120    | 40       | 6              | 8.00       | 110          | .25     | .225   | .176   |
| 643399   | 1812-151J   | 150    | 40       | 5              | 9.00       | 105          | .25     | .225   | .176   |
| 643401   | 1812-181J  | 180    | 40       | 5              | 9.50       | 105          | .25     | .225   | .176   |
| 643410   | 1812-221J  | 220    | 40       | 4              | 10.00      | 100          | .25     | .225   | .176   |
| 643428   | 1812-271J  | 270    | 30       | 4              | 12.00      | 92           | .25     | .225   | .176   |
| 643436   | 1812-331J  | 330    | 40       | 3.5            | 14.00      | 85           | .25     | .225   | .176   |
| 643444   | 1812-391J  | 390    | 40       | 3              | 16.00      | 80           | .25     | .225   | .176   |
| 643452   | 1812-471J  | 470    | 40       | 3              | 26.00      | 62           | .25     | .225   | .176   |
| 643461   | 1812-561J  | 560    | 30       | 3              | 30.00      | 50           | .25     | .225   | .176   |
| 643479   | 1812-681J  | 680    | 30       | 3              | 30.00      | 50           | .25     | .225   | .176   |
| 643487   | 1812-821J  | 820    | 30       | 2.5            | 35.00      | 30           | .25     | .225   | .176   |
| 643495   | 1812-102J  | 1000   | 25       | 2.5            | 40.00      | 30           | .25     | .225   | .176   |

## SMD: Affordable Prototyping Tools Are Available

Whether you like working with SMD boards or not, the technology is here to stay. And while many prototyping efforts can be completed in DIP configurations, as you're probably well-aware, some technologies are only available in SMD packaging.

I avoided SMD boards for many years, but have found that the chore is much more palatable with the proper equipment. The biggest difficulty in soldering and desoldering SMD components is getting the right amount of heat to each of the device's connections simultaneously and evenly.

Affordable soldering stations now exist making this process a lot easier than it used to be. Take the Hot Air SMD Rework Station on page 320 for instance. For under \$400, this system electronically controls the temperature blown on your device. A powerful diaphragm pump provides up to 28 liters of air per minute. Optional focus hood tips are also available to direct the air precisely where you want it for numerous package configurations.

And if you're looking to remove SMD devices, be sure to check out CHIP QUIK's SMD Removal kits, also on page 301. Each kit provides the materials you need to properly clean up SMD solder pads.

Be sure to consider each of these helpful tools next time you're thinking about SMD.

**Practical Practices**  
Money Saving Tips for the Engineer

JAMECO ValuePro

## Molded RF Chokes



## 9230 Series Equivalents

- High Q and high reliability
- Miniature size
- Injection molded to protect coil from extreme environment
- Color bands or numerical marking for identification
- Dielectric strength: 1000Vrms
- Operating temp.: phenolic -55°C to +125°C, iron/ferrite -55°C to +105°C
- Overall length: 2.25" • Lead length: 1.0"
- Body length: 0.25" • Body diameter: 0.095"

| Part No. | Cross Ref. No. | L $\pm 10\%$ ( $\mu$ H) | SRF (MHz) (min.) | DCR Max. ( $\Omega$ ) | I (mA) Max. | Core Material | Pricing |        |        |
|----------|----------------|-------------------------|------------------|-----------------------|-------------|---------------|---------|--------|--------|
|          |                |                         |                  |                       |             |               | 1       | 10     | 100    |
| 372285   | 9230-94        | 0.10                    | 690              | 0.07                  | 1100        | Phenolic      | \$ .84  | \$ .55 | \$ .37 |
| 372293   | 9230-00        | 0.15                    | 600              | 0.10                  | 1100        | Phenolic      | .65     | .41    | .29    |
| 372306   | 9230-04        | 0.22                    | 510              | 0.14                  | 935         | Phenolic      | .81     | .51    | .33    |
| 372314   | 9230-10        | 0.39                    | 380              | 0.30                  | 640         | Phenolic      | .82     | .51    | .33    |
| 372322   | 9230-12        | 0.47                    | 340              | 0.35                  | 590         | Phenolic      | .81     | .51    | .33    |
| 372331   | 9230-14        | 0.56                    | 300              | 0.50                  | 495         | Phenolic      | .84     | .76    | .62    |
| 372349   | 9230-16        | 0.68                    | 275              | 0.60                  | 450         | Phenolic      | .81     | .51    | .33    |
| 372357   | 9230-20        | 1.0                     | 230              | 1.0                   | 350         | Phenolic      | .81     | .51    | .33    |
| 372365   | 9230-32        | 3.3                     | 90               | 0.85                  | 380         | Iron          | .88     | .55    | .40    |
| 372373   | 9230-34        | 3.9                     | 82               | 1.0                   | 350         | Iron          | 1.09    | .98    | .82    |
| 372381   | 9230-36        | 4.7                     | 75               | 1.2                   | 320         | Iron          | .88     | .55    | .40    |
| 372390   | 9230-44        | 10.0                    | 50               | 3.7                   | 180         | Iron          | 1.01    | .62    | .45    |
| 372402   | 9230-52        | 22.0                    | 25               | 3.3                   | 190         | Iron          | 1.03    | .63    | .46    |
| 372411   | 9230-56        | 33.0                    | 24               | 3.4                   | 187         | Ferrite       | 1.09    | .68    | .48    |
| 372429   | 9230-64        | 68.0                    | 15               | 6.7                   | 135         | Ferrite       | 1.09    | .68    | .48    |
| 372437   | 9230-68        | 100                     | 13               | 8.0                   | 125         | Ferrite       | 1.19    | .74    | .53    |
| 372445   | 9230-70        | 120                     | 12               | 13.0                  | 97          | Ferrite       | 1.45    | 1.31   | 1.06   |

JAMECO ValuePro

## Molded RF Chokes



## 9250 Series Equivalents

- High Q and high reliability
- Ferrite magnetic shielded for low radiation
- Injection molded to protect coil from extreme environment
- Color bands or numerical marking for identification
- Dielectric strength: 1000Vrms
- Operating temp.: -55°C to +105°C

| Part No. | Cross Ref. No. | L $\pm 10\%$ ( $\mu$ H) | SRF (MHz) (Min.) | DCR Max. ( $\Omega$ ) | I (mA) Max. | Core Material | Pricing |      |      |
|----------|----------------|-------------------------|------------------|-----------------------|-------------|---------------|---------|------|------|
|          |                |                         |                  |                       |             |               | 1       | 10   | 100  |
| 372453   | 9250-102       | 1.0                     | 140              | 0.07                  | 1070        | Iron          | \$1.59  | .97  | .68  |
| 372461   | 9250-222       | 2.2                     | 100              | 0.19                  | 650         | Iron          | 1.59    | .97  | .68  |
| 372470   | 9250-472       | 4.7                     | 70               | 0.55                  | 380         | Iron          | 1.59    | .97  | .68  |
| 372488   | 9250-103       | 10.0                    | 46               | 1.62                  | 220         | Iron          | 1.59    | .97  | .68  |
| 372496   | 9250-223       | 22.0                    | 41               | 0.96                  | 290         | Ferrite       | 1.59    | .97  | .68  |
| 372509   | 9250-473       | 47.0                    | 27               | 2.11                  | 195         | Ferrite       | 1.75    | 1.07 | .75  |
| 372517   | 9250-104       | 100.0                   | 10               | 3.12                  | 160         | Ferrite       | 1.89    | 1.17 | .82  |
| 372525   | 9250-224       | 220.0                   | 7.5              | 5.0                   | 125         | Ferrite       | 1.89    | 1.17 | .82  |
| 372533   | 9250-474       | 470.0                   | 5.7              | 9.5                   | 92          | Ferrite       | 1.89    | 1.17 | .82  |
| 372541   | 9250-105       | 1000.0                  | 3.8              | 17.5                  | 70          | Ferrite       | 1.89    | 1.17 | .82  |
| 372550   | 9250-225       | 2200.0                  | 0.97             | 33.8                  | 50          | Ferrite       | 2.19    | 1.34 | .94  |
| 372568   | 9250-106       | 10,000.0                | 0.47             | 137.0                 | 24          | Ferrite       | 2.35    | 1.44 | 1.01 |

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## Hash RF Chokes



## 5200 Series Equivalents

- Low cost
- Low DCR
- High current capacity
- Varnish coated
- Ideal for use as EMI filter, output choke, smoothing coil

| Part No. | Cross Ref. No. | L $\pm 10\%$ ( $\mu$ H) | Res. Freq. Min. (Hz) | DCR Max. ( $\Omega$ ) | Current (mA) | Pricing |        |        |
|----------|----------------|-------------------------|----------------------|-----------------------|--------------|---------|--------|--------|
|          |                |                         |                      |                       |              | 1       | 10     | 100    |
| 642396   | 5230           | 4                       | 7.96M                | 0.012                 | 8.0          | \$1.49  | \$ .92 | \$ .66 |
| 642409   | 5240           | 40                      | 1.0kHz               | 0.082                 | 3.0          | 1.49    | .92    | .66    |
| 681088   | 5250           | 100                     | 1.0kHz               | 0.216                 | 2.0          | 1.05    | 1.00   | .69    |
| 681070   | 5252           | 125                     | 1.0kHz               | 0.08                  | 3.5          | 1.75    | 1.07   | .76    |
| 642417   | 5254           | 250                     | 1.0kHz               | 0.17                  | 2.5          | 1.55    | 1.23   | .88    |
| 642425   | 5256           | 500                     | 1.0kHz               | 0.25                  | 2.0          | 1.75    | 1.07   | .75    |
| 642433   | 5258           | 1000                    | 1.0kHz               | 0.6                   | 1.0          | 1.79    | 1.10   | .77    |

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

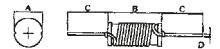
JAMECO ValuePro

## Axial Leaded RF Chokes



## 4600 Series Equivalents

- Inductive tolerance: 10%
- Operating temperature: -55°C to +125°C
- Size: A = 6.8mm max.; B = 19.0mm max.  
C = 25.0  $\pm$  0.2mm; D = 0.65  $\pm$  0.5mm



| Part No. | Cross Ref. No. | L ( $\mu$ H) @ 1kHz | Q min. | SRF (MHz) min. | DCR $\Omega$ max. | IDC (mA) | Pricing |         |         |
|----------|----------------|---------------------|--------|----------------|-------------------|----------|---------|---------|---------|
|          |                |                     |        |                |                   |          | 1       | 10      | 100     |
| 208127   | 4611           | 8.2                 | 57     | 65             | 1.2               | 600      | \$ .77  | \$ .381 | \$ .332 |
| 208135   | 4612           | 10                  | 36     | 61             | 1.5               | 500      | .75     | .64     | .48     |
| 642345   | 4626           | 24                  | 65     | 25             | 0.34              | 800      | .75     | .68     | .58     |

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## High Current Axial RF Chokes

- High current capacity
- Low DCR
- Ferrite bobbin core
- Test frequency: 1kHz



## 5800 Series Equivalents

| Part No. | Cross Ref. No. | L $\pm 10\%$ ( $\mu$ H) | DCR Max. ( $\Omega$ ) | DC Current Max. (A) | Pricing |        |        |
|----------|----------------|-------------------------|-----------------------|---------------------|---------|--------|--------|
|          |                |                         |                       |                     | 1       | 10     | 100    |
| 642548   | 5800-3R9       | 3.9                     | 0.019                 | 1.28                | \$1.19  | \$ .72 | \$ .51 |
| 642556   | 5800-8R2       | 8.2                     | 0.028                 | 1.28                | 1.19    | .72    | .51    |
| 642564   | 5800-100       | 10                      | 0.033                 | 1.28                | 1.19    | .72    | .51    |
| 642572   | 5800-470       | 47                      | 0.109                 | 0.804               | 1.19    | .72    | .51    |
| 642581   | 5800-560       | 56                      | 0.14                  | 0.804               | 1.19    | .72    | .51    |
| 642599   | 5800-820       | 82                      | 0.152                 | 0.804               | 1.19    | .72    | .51    |
| 642601   | 5800-101       | 100                     | 0.208                 | 0.632               | 1.19    | .72    | .51    |
| 642610   | 5800-121       | 120                     | 0.283                 | 0.508               | 1.19    | .72    | .51    |
| 642628   | 5800-151       | 150                     | 0.34                  | 0.508               | 1.19    | .72    | .51    |
| 642636   | 5800-181       | 180                     | 0.362                 | 0.508               | 1.19    | .72    | .51    |
| 642644   | 5800-221       | 220                     | 0.43                  | 0.508               | 1.19    | .72    | .51    |
| 642652   | 5800-271       | 270                     | 0.557                 | 0.4                 | 1.19    | .72    | .51    |
| 642661   | 5800-331       | 330                     | 0.665                 | 0.4                 | 1.19    | .72    | .51    |
| 642679   | 5800-391       | 390                     | 0.772                 | 0.4                 | 1.19    | .72    | .51    |
| 642687   | 5800-471       | 470                     | 1.15                  | 0.315               | 1.19    | .72    | .51    |
| 642695   | 5800-102       | 1000                    | 2.30                  | 0.200               | 1.19    | .72    | .51    |
| 642708   | 5800-152       | 1500                    | 3.45                  | 0.158               | 1.19    | .72    | .51    |
| 642716   | 5800-222       | 2200                    | 4.48                  | 0.158               | 1.19    | .72    | .51    |
| 642724   | 5800-472       | 4700                    | 10.5                  | 0.1                 | 1.19    | .72    | .51    |
| 642732   | 5800-602       | 6800                    | 16.3                  | 0.082               | 1.19    | .72    | .51    |
| 642741   | 5800-103       | 10,000                  | 26.4                  | 0.05                | 1.19    | .72    | .51    |

## 5900 Series Equivalents

| Part No. | Cross Ref. No. | L ( $\mu$ H) | DCR Max. ( $\Omega$ ) | DC Current Max. (A) | Pricing |        |        |
|----------|----------------|--------------|-----------------------|---------------------|---------|--------|--------|
|          |                |              |                       |                     | 1       | 10     | 100    |
| 642759   | 5900-100       | 10           | 0.017                 | 8.7                 | \$2.09  | \$1.28 | \$ .90 |
| 642767   | 5900-220       | 22           | 0.026                 | 6.07                | 2.09    | 1.28   | .90    |
| 642775   | 5900-470       | 47           | 0.035                 | 4                   | 2.09    | 1.28   | .90    |
| 642783   | 5900-560       | 56           | 0.037                 | 3.66                | 2.09    | 1.28   | .90    |
| 642791   | 5900-101       | 100          | 0.09                  | 2.79                | 2.09    | 1.28   | .90    |
| 642804   | 5900-121       | 120          | 0.113                 | 2.54                | 2.09    | 1.28   | .90    |
| 642812   | 5900-151       | 150          | 0.129                 | 2.22                | 2.09    | 1.28   | .90    |
| 642821   | 5900-221       | 220          | 0.162                 | 1.89                | 2.09    | 1.28   | .90    |
| 642839   | 5900-271       | 270          | 0.208                 | 1.63                | 2.09    | 1.28   | .90    |
| 642847   | 5900-331       | 330          | 0.212                 | 1.51                | 2.09    | 1.28   | .90    |
| 642855   | 5900-391       | 390          | 0.281                 | 1.39                | 2.09    | 1.28   | .90    |
| 642863   | 5900-471       | 470          | 0.38                  | 1.2                 | 2.09    | 1.28   | .90    |
| 642871   | 5900-681       | 680          | 0.548                 | 1                   | 2.09    | 1.28   | .90    |
| 642880   | 5900-102       | 1000         | 0.844                 | 0.8                 | 2.09    | 1.28   | .90    |
| 642898   | 5900-152       | 1500         | 1.18                  | 0.7                 | 2.09    | 1.28   | .90    |
| 642901   | 5900-472       | 4700         | 3.19                  | 0.4                 | 2.09    | 1.28   | .90    |
| 642919   | 5900-682       | 6800         | 5.69                  | 0.322               | 2.09    | 1.28   | .90    |
| 642927   | 5900-103       | 10,000       | 7.3                   | 0.266               | 3.19    | 1.97   | 1.39   |

## Jameco's Got The Docs

We offer free technical documents for most of the products we carry. Find them easily on the product specification pages at [www.Jameco.com](http://www.Jameco.com)



JAMECO ValuePro

## Conformal Coated RF Chokes

### 5300 Series Equivalents

- High current and high self-resonant frequency
- Low DCR
- Low cost
- Epoxy coated to protect winding from harsh environments

| Part No. | Cross Ref. No. | L $\pm 10\%$ ( $\mu$ H) | Res. Freq. Min. (MHz) | DCR Max. ( $\Omega$ ) | Current Max. (mA) | Pricing |        |        |
|----------|----------------|-------------------------|-----------------------|-----------------------|-------------------|---------|--------|--------|
|          |                |                         |                       |                       |                   | 1       | 10     | 100    |
| 644332   | 5300-03        | 1.5                     | 160.0                 | 0.019                 | 3300              | \$1.29  | \$1.16 | \$1.00 |
| 644341   | 5300-10        | 5.6                     | 64.0                  | 0.074                 | 1600              | 1.29    | 1.16   | 1.00   |
| 644367   | 5300-13        | 10.0                    | 25.0                  | 0.095                 | 1500              | 1.29    | 1.16   | 1.00   |
| 644375   | 5300-17        | 22.0                    | 8.4                   | 0.19                  | 1000              | 1.29    | 1.16   | 1.00   |
| 642476   | 5300-19        | 33.0                    | 7.6                   | 0.24                  | 910               | 1.29    | 1.16   | 1.00   |
| 642492   | 5300-25        | 100.0                   | 3.9                   | 0.67                  | 550               | 1.29    | 1.16   | 1.00   |
| 642530   | 5300-33        | 470.0                   | 1.4                   | 3.4                   | 240               | 1.29    | 1.16   | .88    |

JAMECO ValuePro

## Epoxy Conformal Coated RF Chokes

### 77F Series Equivalents

- High current and self-resonant frequency
- Low DCR
- Dielectric strength: 550Vrms
- Operating temp.: -55°C to +105°C
- Color bands identification
- Overall length: 2.41"
- Body length: 0.41"
- Lead length: 1.0"
- Body diameter: 0.157"

| Part No. | Cross Ref. No. | L $\pm 10\%$ ( $\mu$ H) | SRF (MHz) (min.) | DCR Max. ( $\Omega$ ) | I (mA) Max. | Pricing |        |        |
|----------|----------------|-------------------------|------------------|-----------------------|-------------|---------|--------|--------|
|          |                |                         |                  |                       |             | 1       | 10     | 100    |
| 371995   | 77F6R8         | 6.8                     | 68.0             | 0.48                  | 550         | \$ .43  | \$ .39 | \$ .32 |
| 372007   | 77F100         | 10.0                    | 45.0             | 0.58                  | 500         | .43     | .39    | .32    |
| 372015   | 77F270         | 27.0                    | 7.6              | 0.94                  | 390         | .43     | .39    | .32    |
| 372023   | 77F330         | 33.0                    | 6.3              | 1.03                  | 370         | .43     | .39    | .32    |
| 372031   | 77F470         | 47.0                    | 6.3              | 1.22                  | 340         | .43     | .39    | .32    |
| 372040   | 77F820         | 82.0                    | 5.3              | 1.62                  | 290         | .43     | .39    | .32    |
| 372058   | 77F101         | 100.0                   | 4.8              | 1.80                  | 275         | .43     | .39    | .32    |
| 372066   | 77F221         | 220.0                   | 3.0              | 5.10                  | 155         | .43     | .39    | .32    |
| 372074   | 77F331         | 330.0                   | 2.6              | 6.40                  | 137         | .43     | .39    | .32    |
| 372082   | 77F391         | 390.0                   | 2.4              | 7.00                  | 133         | .43     | .39    | .32    |
| 372091   | 77F102         | 1000.0                  | 1.4              | 14.0                  | 100         | .43     | .39    | .32    |

\* L ( $\mu$ H)  $\pm 5\%$

### 78F Series Equivalents

- High Q and self-resonant frequency
- Dielectric strength: 500Vrms
- Color bands identification
- Operating temp.: -55°C to +105°C
- Overall length: 2.28"
- Low cost
- Low DCR
- Body length: 0.28"
- Body diameter: 0.11"
- Lead length: 1.0"

| Part No. | Cross Ref. No. | L $\pm 10\%$ ( $\mu$ H) | SRF (MHz) (min.) | DCR Max. ( $\Omega$ ) | I (mA) Max. | Pricing |        |         |
|----------|----------------|-------------------------|------------------|-----------------------|-------------|---------|--------|---------|
|          |                |                         |                  |                       |             | 1       | 10     | 100     |
| 372103   | 78FR68         | 0.68                    | 250              | 0.12                  | 495         | \$ .42  | \$ .26 | \$ .173 |
| 372111   | 78F1R0         | 1.0                     | 180              | 0.15                  | 385         | .42     | .26    | .173    |
| 372120   | 78F1R8         | 1.8                     | 125              | 0.25                  | 455         | .42     | .26    | .173    |
| 372138   | 78F2R7         | 2.7                     | 95               | 0.30                  | 355         | .42     | .26    | .173    |
| 372146   | 78F3R3         | 3.3                     | 70               | 0.34                  | 270         | .42     | .26    | .173    |
| 372154   | 78F4R7         | 4.7                     | 50               | 0.35                  | 230         | .42     | .26    | .173    |
| 372162   | 78FR2          | 8.2                     | 28               | 0.55                  | 155         | .42     | .26    | .173    |
| 372171   | 78F100         | 10.0                    | 22               | 0.72                  | 130         | .42     | .26    | .173    |
| 372189   | 78F120         | 12.0                    | 20               | 0.80                  | 155         | .42     | .26    | .173    |
| 372197   | 78F220         | 22.0                    | 13               | 1.20                  | 140         | .42     | .26    | .173    |
| 372200   | 78F270         | 27.0                    | 11               | 1.35                  | 135         | .42     | .26    | .173    |
| 372218   | 78F330         | 33.0                    | 10               | 1.50                  | 195         | .42     | .26    | .173    |
| 372226   | 78F390         | 39.0                    | 9.5              | 1.70                  | 185         | .42     | .26    | .173    |
| 372234   | 78F470         | 47.0                    | 8.5              | 2.30                  | 167         | .42     | .26    | .173    |
| 372242   | 78F101         | 100.0                   | 5.5              | 3.50                  | 125         | .42     | .26    | .173    |
| 372251   | 78F121         | 120.0                   | 5.4              | 3.80                  | 100         | .42     | .26    | .173    |
| 372269   | 78F221         | 220.0                   | 4.0              | 5.70                  | 76          | .42     | .26    | .173    |
| 372277   | 78F471         | 470.0                   | 2.5              | 11.60                 | 53          | .42     | .26    | .173    |

\* L ( $\mu$ H)  $\pm 5\%$

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product

♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

## Epoxy Conformal Coated Chokes

- Operating temperature: -25°C to +85°C
- Tolerance: 5%
- Size: A = 3.2mm max. B = 7.0mm max. C = 0.48 $\pm$ 0.5mm (except P/N 208143: 0.50 $\pm$ 0.5mm) D = 6 $\pm$ 3mm

| Part No. | L ( $\mu$ H) | Q (min.) | Test. Freq. (MHz) | Res. Freq. Min. (MHz) | DCR Max. ( $\Omega$ ) | Max. DC Curr. (mA) | Pricing |        |        |
|----------|--------------|----------|-------------------|-----------------------|-----------------------|--------------------|---------|--------|--------|
|          |              |          |                   |                       |                       |                    | 1       | 10     | 100    |
| 208143   | 10           | 60       | 7.96              | 28.7                  | 1.56                  | 670                | \$ .49  | \$ .45 | \$ .39 |
| 208194   | 100          | 45       | 2.52              | 5.0                   | 4.98                  | 240                | .49     | .45    | .39    |
| 208215   | 330          | 45       | 0.796             | 2.7                   | 13.2                  | 140                | .42     | .213   | .16    |
| 208223   | 470          | 45       | 0.796             | 2.2                   | 21.4                  | 120                | .42     | .341   | .173   |
| 208240   | 1000         | 45       | 0.796             | 1.5                   | 31.3                  | 80                 | .49     | .45    | .39    |

## Modem Coupling Transformers

125357:

- $\pm 20\%$  impedance matching and DC resistance matching
- Insulation resistance: 100M $\Omega$
- Vacuum wax impregnated
- Core type: EI-14
- Hipot tested: 1000VAC

117760:

- Dielectric strength: 1250VAC
- Insertion loss: 2.50dB @ 1kHz

| Part No. | Cross Ref. No. | Impedance ( $\Omega$ ) |           | Resistance ( $\Omega$ ) |           | Pricing |        |        |
|----------|----------------|------------------------|-----------|-------------------------|-----------|---------|--------|--------|
|          |                | Primary                | Secondary | Primary                 | Secondary | 1       | 10     | 100    |
| 125357   | XFR6006A14     | 600CT                  | 600CT     | 65                      | 55        | \$1.35  | \$1.28 | \$1.15 |
| 117760   | 671-8014       | 600                    | 600       | 108                     | 120       | 1.99    | 1.69   | 1.34   |

## TRIAD Data Voice Coupling Transformers

- Meets requirements for access over leased private lines or through dial-up switched telephone network
- Applications: impedance matching, isolation, repeat coil, line balancing, and hybrid circuits
- Designed to meet FCC part 68.310: 60dB min., 200-1000Hz; 45dB min., 1000-4000Hz
- Dielectric strength FCC68.304: 1500V
- Power level: -45dBm to +7dBm
- Frequency range: data voice: 300 - 3500Hz; data: 800 to 3500Hz

### Data/Voice Coupling Transformers

- Typical frequency response:  $\pm 0.5$

| Part No. | Prod. No. | Impedance ( $\Omega$ ) |           | DC Current (mA) max. | Typical Loss dB |        | Pricing |        |        |
|----------|-----------|------------------------|-----------|----------------------|-----------------|--------|---------|--------|--------|
|          |           | Primary                | Secondary |                      | Insertion       | Return | 1       | 10     | 100    |
| 630491   | TY-303P   | 4000                   | 600       | 0                    | 1.0             | 26     | \$5.29  | \$4.03 | \$3.52 |
| 630504   | TY-305P   | 600                    | 600       | 100                  | 1.5             | 10     | 10.39   | 6.85   | 6.28   |
| 630512   | TY-306P   | 600*                   | 600       | 75                   | 1.5             | 10     | 10.39   | 6.85   | 6.28   |
| 630521   | TY-307P   | 600                    | 600       | 0                    | 1.0             | 26     | 6.09    | 4.01   | 3.68   |
| 630539   | TY-400P   | 600                    | 600       | 90                   | 1.75            | 15     | 7.95    | 5.22   | 4.78   |
| 630547   | TY-401P   | 600CT                  | 600CT     | 90                   | 1.75            | 15     | 7.95    | 5.22   | 4.78   |
| 630555   | TY-402P   | 600                    | 600       | 90                   | 1.75            | 13     | 6.55    | 4.32   | 3.96   |
| 630563   | TY-403P   | 600                    | 600*      | 90                   | 1.75            | 13     | 6.55    | 4.32   | 3.96   |

\* Split coil

### Data/Voice Dual Transformer Hybrid

630475: Trans-hybrid loss: 50dB

630483: Trans-hybrid loss: 55dB

| Part No. | Prod. No. | Impedance ( $\Omega$ ) |           | DC Current (mA) max. | Typical Loss dB |        | Pricing |        |        |
|----------|-----------|------------------------|-----------|----------------------|-----------------|--------|---------|--------|--------|
|          |           | Primary                | Secondary |                      | Insertion       | Return | 1       | 10     | 100    |
| 630475   | TY-300P   | 600 (4W)               | 600/600   | 0                    | 0.8             | 30     | \$5.29  | \$3.48 | \$3.19 |
| 630483   | TY-302P   | 600 (4W)               | 600/600   | 0                    | 0.65            | 32     | 7.95    | 5.22   | 4.78   |

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## Audio Transformers

- Epoxy molded case
- Gold plated leads
- Meets the rigid requirements of MIL-T-27E
- High pot tested @ 1000Vrms
- 150VDC working voltage

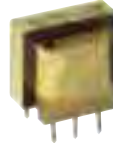


| Part No. | Prod. No. | No. of Circuits | Power Level | Matching Impedance (Ω) |           | Primary DC mA max. | Resistance (Ω) |           | Overall Turn Ratio | Pricing |         |         |
|----------|-----------|-----------------|-------------|------------------------|-----------|--------------------|----------------|-----------|--------------------|---------|---------|---------|
|          |           |                 |             | Primary                | Secondary |                    | Primary        | Secondary |                    | 1       | 10      | 100     |
| 630387   | SP-5♣     | 3               | 25          | 50,000CT               | 1000CT    | 0                  | 3800           | 75        | 7.1:1              | \$19.95 | \$15.36 | \$12.13 |
| 630328   | SP-20♣    | 3               | 50          | 10,000CT               | 1200CT    | 1                  | 1050           | 200       | 2.88:1             | 17.15   | 14.05   | 11.96   |
| 630336   | SP-21♣    | 3               | 550         | 10,000CT               | 2000CT    | 1                  | 1050           | 300       | 2.24:1             | 17.45   | 14.30   | 13.63   |
| 630344   | SP-29♣    | 3               | 50          | 10,000CT               | 500CT     | 1                  | 1050           | 80        | 4.47:1             | 18.59   | 14.22   | 12.37   |
| 630361   | SP-33♣    | 1               | 50          | 1000                   | 50        | 3                  | 145            | 80        | 4.4:1              | 16.89   | 13.69   | 11.47   |
| 630379   | SP-49♣    | 2               | 50          | 300                    | 600       | 7                  | 41             | 98        | 1:1.42             | 20.89   | 14.21   | 12.61   |
| 630395   | SP-51♣    | 2               | 50          | 900CT                  | 600       | 4                  | 104            | 96        | 1.22:1             | 18.19   | 11.96   | 10.97   |
| 630408   | SP-52♣    | 2               | 50          | 1500CT                 | 600       | 3                  | 168            | 92        | 1.58:1             | 20.25   | 13.76   | 12.21   |
| 630416   | SP-66♣    | 3               | 50          | 10,000CT               | 10,000CT  | 1                  | 1000           | 1300      | 1:1                | 16.09   | 10.60   | 9.72    |
| 630424   | SP-70♣    | 1               | 50          | 600                    | 600       | 3                  | 72             | 92        | 1:1                | 16.65   | 10.95   | 10.04   |
| 630352   | SP-310♣   | —               | —           | 0.1H                   | —         | 5                  | 15             | —         | —                  | 2.95    | 2.41    | 2.18    |



## PC Mount Audio Transformers

- Impedance matching: 10% over frequency range
- Applications: line matching, telephone coupling, pulse trigger, driver, interstage, output, isolation, & input
- Size: 5/8"H x 9/32"D x 13/16"L



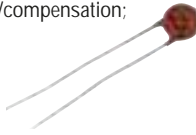
| Part No. | Product No. | Output (mW) | Impedance (Ω) |           | Primary DC Unbalance | Pricing |        |        |
|----------|-------------|-------------|---------------|-----------|----------------------|---------|--------|--------|
|          |             |             | Primary       | Secondary |                      | 1       | 10     | 100    |
| 630432   | TY-141P♣    | 200         | 10,000CT      | 10,000CT  | 4mA                  | \$3.59  | \$2.74 | \$2.39 |
| 630441   | TY-142P♣    | 100         | 10,000CT      | 2,000CT   | 4mA                  | 3.69    | 2.82   | 2.47   |
| 630459   | TY-145P     | 100         | 600CT         | 600CT     | 15mA                 | 3.65    | 3.09   | 2.62   |

- Size: 1-1/8"H x 1-1/8"D x 1-3/8"L

| Part No. | Product No. | Output (W) | Impedance (Ω) |           | Primary DC Unbalance | Pricing |        |        |
|----------|-------------|------------|---------------|-----------|----------------------|---------|--------|--------|
|          |             |            | Primary       | Secondary |                      | 1       | 10     | 100    |
| 630467   | TY-146P♣    | 1          | 600CT/150     | 600CT/150 | —                    | \$6.65  | \$5.09 | \$4.42 |

## NTC Thermistors

- Typical applications: temperature measurement/control/compensation; power supply fan control; PCB temperature monitoring
- Operating temp.: -30°C ~ +130°C
- Maximum allowable power (@ 250°C): 0.55W
- Thermal dissipation factor: 6.5mW/°C (@ 250°C)
- Resistance value allowable difference: 10%



| Part No. | Product No. | Resistance (Ω @ 25°C) | B Constant (25/50°C >10%) | Temp. Coef. @ 25°C (%/°C) | Pricing |        |        |        |
|----------|-------------|-----------------------|---------------------------|---------------------------|---------|--------|--------|--------|
|          |             |                       |                           |                           | 1       | 10     | 100    | 500    |
| 207521   | NTC-101 ♣   | 100                   | 3100                      | -3.5                      | \$ .59  | \$ .49 | \$ .39 | \$ .32 |
| 207482   | NTC-102 ♣   | 1k                    | 3800                      | -4.3                      | .59     | .49    | .39    | .32    |
| 207440   | NTC-502 ♣   | 5k                    | 3900                      | -4.4                      | .59     | .49    | .39    | .32    |
| 207036   | NTC-103 ♣   | 10k                   | 4100                      | -4.6                      | .59     | .49    | .39    | .32    |
| 207029   | NTC-153 ♣   | 15k                   | 4100                      | -4.6                      | .59     | .49    | .39    | .32    |
| 207011   | NTC-203 ♣   | 20k                   | 4200                      | -4.7                      | .59     | .49    | .39    | .32    |
| 207001   | NTC-503 ♣   | 50k                   | 4200                      | -4.7                      | .59     | .49    | .39    | .32    |
| 206991   | NTC-104 ♣   | 100k                  | 4400                      | -4.9                      | .59     | .49    | .39    | .32    |
| 206982   | NTC-204 ♣   | 200k                  | 4500                      | -5.1                      | .59     | .49    | .39    | .32    |



## BA Series Metal Oxide Varistor

- Bolt-down mount
- Bidirectional clamping polarity

| BA Series |                | Max. Ratings (+85°C)     |                          |                        | Characteristics at 25°C                 |           |           | Pricing  |         |         |
|-----------|----------------|--------------------------|--------------------------|------------------------|---|-----------|-----------|----------|---------|---------|
|           |                | Continuous RMS Volt.     | DC Volt.                 | Transient Energy (2ms) | Varistor Voltage at 1mA DC Test Current | MIN Volts | MAX Volts |          |         |         |
| Part No.  | Cross Ref. No. | V <sub>M(AC)</sub> Volts | V <sub>M(DC)</sub> Volts | W <sub>TM</sub> Joules | V <sub>N(DC)</sub> Volts                | MIN Volts | MAX Volts | 1        | 10      | 100     |
| 638223    | V481BA60       | 480                      | 640                      | 1600                   | 670                                     | 750       | 825       | \$103.25 | \$98.06 | \$93.16 |



## LA Series Equivalent Radial Leaded Varistors



\* Prepackaged: please order in increments of 10

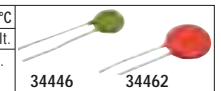
| Part No. | Cross Ref. No. | Size Dia. (mm) | Continuous Voltage     |                       | Transient Energy Joules | Maximum Clamping Voltage |                     | Pricing |        |      |
|----------|----------------|----------------|------------------------|-----------------------|-------------------------|--------------------------|---------------------|---------|--------|------|
|          |                |                | RMS V <sub>M(AC)</sub> | DC V <sub>M(DC)</sub> |                         | V <sub>C</sub>           | I <sub>PK</sub> (A) | 1       | 10     | 100  |
| 667032   | V130LA2 ♣      | 7              | 130                    | 200                   | 17.5                    | 340                      | 10                  | * .15   | * .112 |      |
| 667091   | V150LA2 ♣      | 7              | 150                    | 240                   | 21                      | 395                      | 10                  | * .13   | * .112 |      |
| 667155   | V275LA2 ♣      | 7              | 275                    | 430                   | 40                      | 710                      | 10                  | * .13   | * .112 |      |
| 667041   | V130LA5 ♣      | 10             | 130                    | 200                   | 35                      | 340                      | 25                  | * .16   | * .144 |      |
| 667067   | V140LA5 ♣      | 10             | 140                    | 220                   | 39                      | 360                      | 25                  | * .158  | * .144 |      |
| 667104   | V150LA5 ♣      | 10             | 150                    | 240                   | 42                      | 395                      | 25                  | * .15   | * .128 |      |
| 667147   | V250LA10 ♣     | 10             | 250                    | 390                   | 70                      | 650                      | 25                  | * .16   | * .144 |      |
| 667366   | V130LA10A ♣    | 14             | 130                    | 200                   | 70                      | 340                      | 50                  | .21     | .19    | .168 |
| 667075   | V140LA10A ♣    | 14             | 140                    | 220                   | 78                      | 360                      | 50                  | .26     | .228   | .198 |
| 667112   | V150LA10A ♣    | 14             | 150                    | 240                   | 84                      | 395                      | 50                  | .26     | .228   | .198 |
| 667180   | V320LA20A ♣    | 14             | 320                    | 510                   | 190                     | 845                      | 50                  | .26     | .228   | .198 |
| 667201   | V420LA20A ♣    | 14             | 420                    | 680                   | 130                     | 1120                     | 50                  | .26     | .228   | .198 |
| 667227   | V480LA40A ♣    | 14             | 485                    | 780                   | 148                     | 1290                     | 50                  | .34     | .308   | .269 |
| 667243   | V510LA40A ♣    | 14             | 510                    | 820                   | 157                     | 1355                     | 50                  | .49     | .435   | .384 |
| 667059   | V130LA20B ♣    | 20             | 130                    | 200                   | 140                     | 340                      | 100                 | .41     | .359   | .313 |
| 667121   | V150LA20A ♣    | 20             | 150                    | 240                   | 170                     | 395                      | 100                 | .41     | .359   | .313 |
| 667163   | V275LA40A ♣    | 20             | 275                    | 430                   | 303                     | 710                      | 100                 | .41     | .359   | .313 |
| 667198   | V320LA40B ♣    | 20             | 320                    | 510                   | 382                     | 845                      | 100                 | .37     | .33    | .30  |
| 667219   | V420LA40B ♣    | 20             | 420                    | 680                   | 23                      | 1120                     | 100                 | .52     | .468   | .416 |
| 667235   | V480LA80B ♣    | 20             | 485                    | 780                   | 265                     | 1290                     | 100                 | .60     | .58    | .52  |
| 667251   | V510LA80B ♣    | 20             | 510                    | 820                   | 282                     | 1355                     | 100                 | .62     | .55    | .472 |

## LA Series Radial Leaded Varistors

- AC power line applications
- Power supplies
- High energy absorption
- UL recognized as "transient voltage surge suppressors"
- UL recognized as "across-the-line components"



| LA Series |                | Size           | Max. Ratings (+85°C)     |                          |                              | Characteristics at 25°C                                   |                            | Pricing |         |         |         |
|-----------|----------------|----------------|--------------------------|--------------------------|------------------------------|---|----------------------------|---------|---------|---------|---------|
|           |                |                | Continuous RMS Volt.     | DC Volt.                 | Transient Energy (10/1000µs) | Max Clamping Volt. @ I <sub>PK</sub> Value Curr. (8/20µs) |                            |         |         |         |         |
| Part No.  | Cross Ref. No. | Disc Dia. (mm) | V <sub>M(AC)</sub> Volts | V <sub>M(DC)</sub> Volts | W <sub>TM</sub> Joules       | V <sub>C</sub> Volts                                      | I <sub>PK</sub> =2.0A Amps | 1       | 10      | 100     | 500     |
| 34446     | V130LA10A      | 14             | 130                      | 175                      | 38                           | 340   | 50                         | \$ .30  | \$ .252 | \$ .186 | \$ .167 |
| 34471     | V250LA20A ♣    | 14             | 250                      | 330                      | 72                           | 650   | 50                         | .39     | .35     | .32     | .30     |
| 34462     | V130LA20A      | 20             | 130                      | 175                      | 70                           | 340   | 100                        | .59     | .56     | .54     | .52     |



## ZA Series Radial Leaded Varistor

- Through-hole mount
- Bidirectional clamping polarity

| ZA Series |                | Size           | Max. Ratings (+85°C)     |                          |                              | Characteristics at 25°C           |                      | Pricing (100 pcs. minimum) |         |        |
|-----------|----------------|----------------|--------------------------|--------------------------|------------------------------|-----------------------------------|----------------------|----------------------------|---------|--------|
|           |                |                | Continuous RMS Volt.     | DC Volt.                 | Transient Energy (10/1000µs) | Maximum Clamping Voltage (8/20µs) |                      |                            |         |        |
| Part No.  | Cross Ref. No. | Disc Dia. (mm) | V <sub>M(AC)</sub> Volts | V <sub>M(DC)</sub> Volts | W <sub>TM</sub> Joules       | V <sub>C</sub> Volts              | I <sub>PK</sub> Amps | 100                        | 250     | 500    |
| 638231    | V68ZA2 ♣       | 7              | 40                       | 56                       | 3                            | 127                               | 5                    | \$ .204                    | \$ .194 | \$ .18 |



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## ZA Series Equivalent Radial Leaded Varistors



\* Prepackaged: please order in increments of 10

| Part No. | Cross Ref. No. | Size Dia. (mm) | Continuous Voltage     |                       | Transient Energy Joules | Maximum Clamping Voltage |                     | Pricing |      |      |
|----------|----------------|----------------|------------------------|-----------------------|-------------------------|--------------------------|---------------------|---------|------|------|
|          |                |                | RMS V <sub>M(AC)</sub> | DC V <sub>M(DC)</sub> |                         | V <sub>C</sub>           | I <sub>PK</sub> (A) | 1       | 10   | 100  |
| 667358   | V18ZA05        | 5              | 11                     | 18                    | 0.3                     | 40                       | 1                   | * .15   | .128 |      |
| 666785   | V22ZA05        | 5              | 14                     | 22                    | 0.4                     | 80                       | 1                   | .20     | .166 | .128 |
| 666831   | V27ZA05        | 5              | 17                     | 27                    | 0.5                     | 60                       | 1                   | * .13   | .112 |      |
| 666996   | V220ZA05       | 5              | 140                    | 220                   | 4.5                     | 380                      | 5                   | .25     | .221 | .192 |
| 667008   | V330ZA05       | 5              | 210                    | 330                   | 6.5                     | 580                      | 5                   | .25     | .221 | .192 |
| 667016   | V390ZA05       | 5              | 250                    | 390                   | 8                       | 675                      | 5                   | .23     | .203 | .182 |
| 667382   | V18ZA1         | 7              | 11                     | 18                    | 0.8                     | 36                       | 2.5                 | * .15   | .128 |      |
| 666793   | V22ZA1         | 7              | 14                     | 22                    | 0.9                     | 43                       | 2.5                 | .20     | .166 | .128 |
| 666873   | V56ZA2         | 7              | 35                     | 56                    | 2.2                     | 110                      | 2.5                 | * .13   | .112 |      |
| 666890   | V68ZA2         | 7              | 40                     | 68                    | 2.5                     | 135                      | 2.5                 | * .13   | .112 |      |
| 666961   | V180ZA1        | 7              | 115                    | 180                   | 8                       | 300                      | 10                  | .20     | .166 | .128 |
| 666751   | V18ZA2         | 10             | 11                     | 18                    | 1.5                     | 36                       | 5                   | * .16   | .144 |      |
| 666806   | V22ZA2         | 10             | 14                     | 22                    | 2.04                    | 43                       | 5                   | * .16   | .144 |      |

\* Prepackaged: please order in increments of 10

| Part No. | Cross Ref. No. | Size Dia. (mm) | Continuous Voltage     |                       | Transient Energy Joules | Maximum Clamping Voltage |                     | Pricing |      |      |
|----------|----------------|----------------|------------------------|-----------------------|-------------------------|--------------------------|---------------------|---------|------|------|
|          |                |                | RMS V <sub>M(AC)</sub> | DC V <sub>M(DC)</sub> |                         | V <sub>C</sub>           | I <sub>PK</sub> (A) | 1       | 10   | 100  |
| 666865   | V47ZA3         | 10             | 47                     | 38                    | 4.5                     | 93                       | 5                   | * .16   | .144 |      |
| 666902   | V68ZA3         | 10             | 40                     | 68                    | 6.5                     | 135                      | 5                   | * .16   | .144 |      |
| 666929   | V82ZA4         | 10             | 50                     | 82                    | 8                       | 135                      | 25                  | .29     | .253 | .224 |
| 666970   | V180ZA5        | 10             | 115                    | 180                   | 18                      | 300                      | 25                  | * .158  | .144 |      |
| 666769   | V18ZA3         | 14             | 11                     | 18                    | 3.5                     | 36                       | 10                  | .26     | .228 | .198 |
| 666814   | V22ZA3         | 14             | 14                     | 22                    | 4                       | 43                       | 10                  | .33     | .294 | .256 |
| 666857   | V47ZA7         | 14             | 30                     | 47                    | 8.5                     | 93                       | 10                  | .26     | .228 | .198 |
| 666881   | V56ZA8         | 14             | 35                     | 56                    | 10                      | 110                      | 10                  | .26     | .228 | .198 |
| 666911   | V68ZA10        | 14             | 40                     | 68                    | 12                      | 135                      | 10                  | .26     | .228 | .198 |
| 666937   | V82ZA12        | 14             | 50                     | 82                    | 14                      | 135                      | 50                  | .33     | .294 | .256 |
| 666945   | V100ZA15       | 14             | 60                     | 100                   | 18                      | 165                      | 50                  | .26     | .228 | .198 |
| 666988   | V180ZA10       | 14             | 115                    | 180                   | 30                      | 300                      | 50                  | .26     | .228 | .198 |
| 666777   | V18ZA40        | 20             | 11                     | 18                    | 10                      | 36                       | —                   | .41     | .359 | .313 |
| 666822   | V24ZA50        | 20             | 14                     | 22                    | 13                      | 43                       | —                   | .41     | .356 | .313 |
| 666849   | V47ZA20        | 20             | 30                     | 68                    | 30                      | 93                       | —                   | .41     | .359 | .313 |
| 666953   | V150ZA20       | 20             | 95                     | 150                   | 50                      | 250                      | —                   | .33     | .292 | .256 |



## Glass and Ceramic Fuses

- 250V
- 1.25"L x 0.25"Dia.
- UL/CSA/CE



3AG-312



3AG-313



3AB-314

### 3AG Type Fast Acting Glass Fuses 312 Series

| Part No. | Product No. | Amps  | 1   | 10   | 100  |
|----------|-------------|-------|-----|------|------|
| 652826   | 312.062HXP  | 1/16  | .75 | .66  | .60  |
| 652834   | 312.100HXP  | 1/10  | .75 | .67  | .60  |
| 652842   | 312.125HXP  | 1/8   | .79 | .77  | .60  |
| 652851   | 312.175HXP  | 0.175 | .69 | .65  | .60  |
| 652869   | 312.187HXP  | 3/16  | .75 | .67  | .60  |
| 652877   | 312.200HXP  | 2/10  | .66 | .63  | .60  |
| 652885   | 312.250HXP  | 1/4   | .79 | .76  | .73  |
| 652893   | 312.300HXP  | 3/10  | .79 | .76  | .65  |
| 652906   | 312.375HXP  | 3/8   | .34 | .295 | .266 |
| 652914   | 312.500HXP  | 1/2   | .31 | .298 | .284 |
| 652922   | 312.600HXP  | 6/10  | .23 | .209 | .185 |
| 652931   | 312.750HXP  | 3/4   | .23 | .209 | .183 |
| 652949   | 312001.HXP  | 1     | .25 | .223 | .19  |
| 652957   | 3121.25HXP  | 1 1/4 | .23 | .197 | .186 |
| 652965   | 31201.5HXP  | 1 1/2 | .24 | .223 | .19  |
| 652973   | 312002.HXP  | 2     | .22 | .197 | .186 |
| 652981   | 312025.HXP  | 2 1/2 | .24 | .223 | .19  |
| 652990   | 312003.HXP  | 3     | .23 | .197 | .186 |
| 653001   | 312004.HXP  | 4     | .23 | .209 | .187 |
| 653010   | 312005.HXP  | 5     | .23 | .209 | .187 |
| 653028   | 312006.HXP  | 6     | .23 | .209 | .185 |
| 653036   | 312007.HXP  | 7     | .23 | .209 | .189 |
| 653044   | 312008.HXP  | 8     | .31 | .276 | .257 |
| 653052   | 312010.HXP  | 10    | .31 | .276 | .257 |

### 3AG Type Slow Blow Glass Fuses 313 Series (Cont.)

| Part No. | Product No. | Amps  | 1    | 10   | 100  |
|----------|-------------|-------|------|------|------|
| 653360   | 313.300HXP  | 3/10  | .95  | .92  | .85  |
| 653378   | 313.375HXP  | 3/8   | .95  | .91  | .85  |
| 653386   | 313.400HXP  | 4/10  | .96  | .92  | .85  |
| 653394   | 313.500HXP  | 1/2   | .89  | .89  | .84  |
| 653407   | 313.600HXP  | 6/10  | .89  | .89  | .84  |
| 653415   | 313.700HXP  | 7/10  | .89  | .89  | .84  |
| 653423   | 313.750HXP  | 3/4   | .89  | .89  | .84  |
| 653431   | 313.800HXP  | 8/10  | .89  | .89  | .84  |
| 653440   | 313001HXP   | 1     | .89  | .85  | .81  |
| 653458   | 31301.2HXP  | 1 1/2 | .75  | .68  | .64  |
| 653466   | 3131.25HXP  | 1     | .69  | .66  | .63  |
| 653474   | 31301.5HXP  | 1     | .75  | .68  | .64  |
| 653482   | 31301.6HXP  | 1 1/2 | .55  | .47  | .425 |
| 653491   | 313002HXP   | 2     | .85  | .85  | .81  |
| 653503   | 31302.5HXP  | 2     | .69  | .68  | .58  |
| 653511   | 313003HXP   | 3     | .69  | .68  | .58  |
| 653520   | 31303.2HXP  | 3 1/2 | .69  | .68  | .58  |
| 653538   | 313004HXP   | 4     | .79  | .77  | .74  |
| 653546   | 313005HXP   | 5     | .85  | .79  | .74  |
| 653554   | 3136.25HXP  | 6 1/4 | .85  | .79  | .74  |
| 653562   | 31306.3HXP  | 6 3/4 | .59  | .56  | .50  |
| 653571   | 313007HXP   | 7     | .85  | .79  | .73  |
| 653589   | 313008HXP   | 8     | .85  | .79  | .74  |
| 653597   | 313010HXP   | 10    | .99  | .98  | .93  |
| 653600   | 313012HXP   | 12    | .99  | .98  | .93  |
| 653618   | 313015HXP   | 15    | .99  | .98  | .93  |
| 653626   | 313020HXP   | 20    | .71  | .64  | .59  |
| 653634   | 313025HXP   | 25    | 1.09 | 1.00 | .94  |
| 653642   | 313030HXP   | 30    | 1.05 | 1.00 | .94  |

### 3AG Type Slow Blow Glass Fuses 313 Series

| Part No. | Product No. | Amps   | 1    | 10   | 100  |
|----------|-------------|--------|------|------|------|
| 653263   | 313.010HXP  | 1/100  | 1.95 | 1.72 | 1.56 |
| 653271   | 313.031HXP  | 1/32   | 1.95 | 1.72 | 1.56 |
| 653280   | 313.040HXP  | 4/100  | 1.95 | 1.72 | 1.56 |
| 653298   | 313.062HXP  | 1/16   | 1.10 | .97  | .88  |
| 653301   | 313.100HXP  | 1/10   | 1.65 | 1.56 | 1.44 |
| 653319   | 313.125HXP  | 1/8    | 1.65 | 1.56 | 1.43 |
| 653327   | 313.150HXP  | 15/100 | 1.65 | 1.56 | 1.45 |
| 653335   | 313.187HXP  | 3/16   | .94  | .92  | .86  |
| 653343   | 313.200HXP  | 2/10   | .89  | .84  | .77  |
| 653351   | 313.250HXP  | 1/2    | .95  | .91  | .85  |

### 3AB Type Fast Acting Ceramic Fuses 314 Series

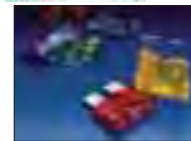
| Part No. | Product No. | Amps | 1    | 10   | 100  |
|----------|-------------|------|------|------|------|
| 656827   | 314.125HXP  | 1/8  | 1.09 | 1.05 | 1.00 |
| 656835   | 314.250HXP  | 1/4  | 1.09 | 1.05 | 1.00 |
| 656843   | 314.500HXP  | 1/2  | .75  | .73  | .70  |
| 656851   | 314.750HXP  | 3/4  | .88  | .80  | .76  |
| 656860   | 314001HXP   | 1    | .69  | .68  | .63  |

### 3AB Type Fast Acting Ceramic Fuses 314 Series (Cont.)

| Part No. | Product No. | Amps | 1    | 10   | 100 |
|----------|-------------|------|------|------|-----|
| 656878   | 314002.HXP  | 2    | .69  | .68  | .64 |
| 656886   | 314003.HXP  | 3    | .69  | .68  | .63 |
| 656894   | 314004.HXP  | 4    | .69  | .64  | .63 |
| 656915   | 314005.HXP  | 5    | .69  | .68  | .63 |
| 656923   | 314006.HXP  | 6    | .69  | .68  | .63 |
| 656931   | 314007.HXP  | 7    | .69  | .68  | .63 |
| 656940   | 314008.HXP  | 8    | .69  | .68  | .63 |
| 656958   | 314010.HXP  | 10   | .69  | .68  | .63 |
| 656966   | 314012.HXP  | 12   | .69  | .68  | .63 |
| 656974   | 314015.HXP  | 15   | .69  | .68  | .63 |
| 656982   | 314020.HXP  | 20   | 1.05 | 1.00 | .92 |
| 656991   | 314025.HXP  | 25   | 1.05 | 1.00 | .92 |
| 657002   | 314030.HXP  | 30   | 1.05 | 1.00 | .92 |



## Fuse Series



### ATO® 257 Series

- Fast acting and Slo-Blo® type fuses
- Standard for automobiles & trucks

### FLNR Fuses

- Dual-element, time-delay • 250VAC

### AC Midget — KLK Series

- For use in circuits w/ high AC fault current capacity

### Class CC — CCMR Series

- Fast acting protection to equipment containing surge sensitive components

### ATO® In-Line Fuse holders

- For use with ATO® Fuses 1-20A
- Supplied with (2) 4" wire leads/16AWG

### LR60060-3 Class R Fuse holder

These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

See Our Complete Littelfuse Offering at

[www.Jameco.com/Prod/Littelfuse](http://www.Jameco.com/Prod/Littelfuse)





## Resettable Fuses

Resettable fuses improve reliability and lower costs. Polymer Positive Temperature Coefficient (PPTC) fuses have provided designers in numerous industries a new tool in their battle to improve product quality and performance. As PPTC fuses are resettable, warranty costs and service calls are largely avoided.

### RA Series

- Rated voltage: ( $V_{MAX}$ ): 60V
- Max. current: ( $I_{MAX}$ ): 40A
- Lead length (D): 7.6mm min.
- Thickness (E): 3.1mm max.

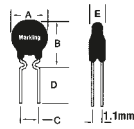


Fig. 1

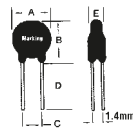


Fig. 2

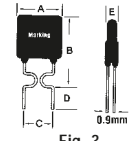


Fig. 3

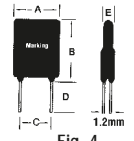


Fig. 4

### RB Series

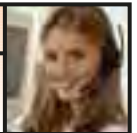
- Rated voltage: ( $V_{MAX}$ ): 30V
- Max. current: ( $I_{MAX}$ ): 40A
- Lead length (D): 7.6mm min.
- Thickness (E): 3.0mm max.

| Part No. | Mfg. P/N | Hold Curr. ( $I_H$ , A) | Trip Curr. ( $I_T$ , A) | Fig. | Size (mm) |      |      | Pricing |       |        |        |
|----------|----------|-------------------------|-------------------------|------|-----------|------|------|---------|-------|--------|--------|
|          |          |                         |                         |      | A         | B    | C    | 1       | 10    | 100    | 500    |
| 199815   | RA010-60 | 0.10                    | 0.20                    | 1    | 7.4       | 12.7 | 5.1  | \$.45   | \$.41 | \$.39  | \$.31  |
| 199831   | RA020-60 | 0.20                    | 0.40                    | 1    | 7.4       | 12.2 | 5.1  | \$.45   | \$.41 | \$.39  | \$.31  |
| 199850   | RA025-60 | 0.25                    | 0.50                    | 1    | 7.4       | 12.7 | 5.1  | \$.45   | \$.41 | \$.39  | \$.31  |
| 199858   | RA030-60 | 0.30                    | 0.60                    | 1    | 7.4       | 13.0 | 5.1  | \$.45   | \$.41 | \$.39  | \$.31  |
| 199866   | RA040-60 | 0.40                    | 0.80                    | 1    | 7.6       | 13.5 | 5.1  | \$.49   | \$.44 | \$.41  | \$.32  |
| 199874   | RA050-60 | 0.50                    | 1.00                    | 1    | 7.9       | 13.7 | 5.1  | \$.49   | \$.46 | \$.43  | \$.32  |
| 199882   | RA065-60 | 0.65                    | 1.30                    | 1    | 9.7       | 14.5 | 5.1  | \$.50   | \$.47 | \$.43  | \$.34  |
| 199890   | RA075-60 | 0.75                    | 1.50                    | 1    | 10.4      | 15.2 | 5.1  | \$.54   | \$.49 | \$.389 | \$.292 |
| 199903   | RA090-60 | 0.90                    | 1.80                    | 1    | 11.7      | 15.8 | 5.1  | \$.52   | \$.49 | \$.45  | \$.30  |
| 199912   | RA110-60 | 1.10                    | 2.20                    | 2    | 13.0      | 18.0 | 5.1  | \$.57   | \$.55 | \$.52  | \$.40  |
| 199938   | RA160-60 | 1.60                    | 3.20                    | 2    | 16.3      | 21.3 | 5.1  | \$.60   | \$.57 | \$.54  | \$.42  |
| 199945   | RA185-60 | 1.85                    | 3.70                    | 2    | 17.8      | 22.9 | 5.1  | \$.47   | \$.44 | \$.36  | \$.32  |
| 199953   | RA250-60 | 2.50                    | 5.00                    | 2    | 21.3      | 26.4 | 10.2 | \$.68   | \$.63 | \$.56  | \$.42  |

| Part No. | Mfg. P/N | Hold Curr. ( $I_H$ , A) | Trip Curr. ( $I_T$ , A) | Fig. | Size (mm) |      |      | Pricing |       |       |       |
|----------|----------|-------------------------|-------------------------|------|-----------|------|------|---------|-------|-------|-------|
|          |          |                         |                         |      | A         | B    | C    | 1       | 10    | 100   | 500   |
| 199989   | RB090-30 | 0.90                    | 1.80                    | 3    | 7.4       | 12.2 | 5.1  | \$.48   | \$.43 | \$.35 | \$.26 |
| 199997   | RB110-30 | 1.10                    | 2.20                    | 3    | 7.4       | 14.2 | 5.1  | \$.48   | \$.43 | \$.39 | \$.31 |
| 200003   | RB135-30 | 1.35                    | 2.70                    | 3    | 8.9       | 13.5 | 5.1  | \$.48   | \$.46 | \$.43 | \$.34 |
| 200030   | RB185-30 | 1.85                    | 3.70                    | 3    | 10.2      | 15.7 | 5.1  | \$.48   | \$.43 | \$.39 | \$.32 |
| 200046   | RB300-30 | 3.00                    | 6.00                    | 4    | 11.4      | 17.3 | 5.1  | \$.57   | \$.52 | \$.48 | \$.37 |
| 200062   | RB500-30 | 5.00                    | 10.00                   | 4    | 14.0      | 24.9 | 10.2 | \$.67   | \$.60 | \$.54 | \$.44 |

## Committed to You

We're committed to providing you with the best service in the industry.



## Fuse Clips

- Low contact resistance
- Low profile
- Withstands shock/vibration
- Prepackaged: please order in increments of 10

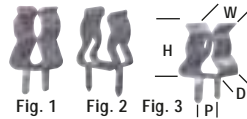


Fig. 1

Fig. 2

Fig. 3

| Part No. | Description             | Fig. | Size (H" x W" x D" x P") | 10    | 100   | 1000  |
|----------|-------------------------|------|--------------------------|-------|-------|-------|
| 102859   | 5mm, front leads        | 1    | .37 x .25 x .21 x .19    | \$.12 | \$.09 | \$.05 |
| 119280   | 5mm, side leads         | 2    | .33 x .25 x .20 x .21    | \$.09 | \$.08 | \$.07 |
| 102841   | 1/4", front leads (10A) | 3    | .32 x .27 x .25 x .23    | \$.09 | \$.08 | \$.07 |
| 220733   | 5mm, front leads (10A)  | 3    | .33 x .27 x .25 x .29    | \$.15 | \$.10 | \$.07 |

## 1/4" x 1/4" Standard Fuses

### Fast Acting Fuses (250V) AGC/3AG Fuses

- Prepackaged: please order in increments of 10

| Part No. | Amps  | Cross Ref. | 10    | 100   | 1000  |
|----------|-------|------------|-------|-------|-------|
| 69403    | 250mA | AGC-250mA  | \$.20 | \$.18 | \$.16 |
| 10410    | 500mA | AGC-1/2    | \$.20 | \$.18 | \$.16 |
| 10372    | 1A    | AGC-1      | \$.20 | \$.12 | \$.11 |
| 197528   | 1.6A  | AGC-1.6    | \$.20 | \$.12 | \$.11 |
| 10382    | 2A    | AGC-2      | \$.20 | \$.12 | \$.11 |
| 197536   | 2.5A  | AGC-21/2   | \$.26 | \$.12 | \$.10 |
| 69438    | 3A    | AGC-3      | \$.20 | \$.12 | \$.11 |
| 197544   | 4A    | AGC-4      | \$.22 | \$.20 | \$.18 |
| 10401    | 5A    | AGC-5      | \$.22 | \$.20 | \$.18 |
| 197552   | 6.3A  | AGC-6.3    | \$.22 | \$.20 | \$.18 |
| 69462    | 10A   | AGC-10     | \$.25 | \$.22 | \$.20 |
| 186301   | 16A   | —          | \$.25 | \$.22 | \$.20 |

### Slow Blow Fuses (250V) MDL/3AG Fuses

| Part No. | Amps  | Cross Ref. | 10    | 100   | 1000   |
|----------|-------|------------|-------|-------|--------|
| 25654    | 250mA | MDL-1/4    | \$.62 | \$.56 | \$.446 |
| 25689    | 500mA | MDL-1/2    | \$.69 | \$.59 | \$.50  |
| 25638    | 1A    | MDL-1      | \$.69 | \$.59 | \$.50  |
| 25646    | 2A    | MDL-2      | \$.55 | \$.44 | \$.34  |
| 69534    | 3A    | MDL-3      | \$.55 | \$.44 | \$.34  |
| 25671    | 5A    | MDL-5      | \$.55 | \$.44 | \$.34  |
| 69570    | 10A   | MDL-10     | \$.75 | \$.65 | \$.51  |

Blue Part No. = Limited Quantity Available

## 5mm x 20mm Mini Fuses

### Fast Acting Fuses (250V) GMA Fuses

- Recommended for new designs
- Prepackaged: please order in increments of 10

| Part No. | Amps  | Cross Ref. | 10    | 100   | 500   | 1000  |
|----------|-------|------------|-------|-------|-------|-------|
| 103887   | 250mA | GMA-250mA  | \$.20 | \$.15 | \$.11 | \$.10 |
| 102040   | 500mA | GMA-500mA  | \$.20 | \$.15 | \$.11 | \$.10 |
| 103907   | 1A    | GMA-1      | \$.20 | \$.15 | \$.11 | \$.10 |
| 103916   | 2A    | GMA-2      | \$.25 | \$.18 | \$.13 | \$.12 |
| 103924   | 3A    | GMA-3      | \$.20 | \$.15 | \$.11 | \$.10 |
| 103931   | 5A    | GMA-5      | \$.20 | \$.15 | \$.11 | \$.10 |

### Slow Blow Fuses (250V) GMD Fuses

- Prepackaged: please order in increments of 10

| Part No. | Amps  | Cross Ref. | 10    | 100   | 1000  |
|----------|-------|------------|-------|-------|-------|
| 197501   | 500mA | GMD-500mA  | \$.29 | \$.26 | \$.23 |
| 197464   | 1A    | GMD-1      | \$.29 | \$.26 | \$.23 |
| 197472   | 2A    | GMD-2      | \$.35 | \$.32 | \$.29 |
| 197482   | 3.15A | GMD-3.15   | \$.35 | \$.32 | \$.29 |
| 197499   | 5A    | GMD-5      | \$.35 | \$.32 | \$.29 |

## 5mm x 20mm Miniature Low Profile Fuse Holder

- Accepts 5 x 20mm fuses
- 10A @ 250VAC
- Size: 1.4" L x 0.6" Dia.
- D-style mounting hole: 1 ea. 0.5" Dia x .46" flat

| Part No. | Description        | 1      | 10     | 100    |
|----------|--------------------|--------|--------|--------|
| 102832   | Fuse holder UL/CSA | \$1.95 | \$1.79 | \$1.59 |

## In-Line Fuse Holders

- Built-in spring ensures good fuse connection
- Vinyl covered wire with stranded copper center
- Wire color: red; except for P/N 108784 orange

### 1/4" x 1/4" Standard

| Part No. | AWG | Wire Lgths | Body Size (L) | Body Color | 1     | 10    | 100   |
|----------|-----|------------|---------------|------------|-------|-------|-------|
| 109322   | 22  | 3.5/3"     | 2.4"          | Blk        | \$.65 | \$.58 | \$.52 |
| 102868   | 20  | 3/3"       | 2.2"          | Wht        | \$.65 | \$.58 | \$.48 |
| 151918   | 18  | 6/6"       | 2.4"          | Wht        | \$.99 | \$.85 | \$.65 |
| 108784   | 16  | 21/26"     | 2.2"          | Blk        | \$.99 | \$.87 | \$.68 |
| 108791   | 14  | 19/25"     | 2.5"          | Blk        | 1.59  | 1.45  | 1.05  |

### 5mm x 20mm Miniature

| Part No. | AWG | Wire Color | Body Size (L) | 1     | 10    | 100   |
|----------|-----|------------|---------------|-------|-------|-------|
| 109330   | 20  | Red        | 1.8"          | \$.69 | \$.56 | \$.42 |

## 5mm x 20mm Fast Acting Fuse Kit

- Glass cartridge, silver-end caps
- Voltage rating: 250VAC
- IEC127/BS4265/CEE4 specifications
- 100 pieces: 10 ea. of 0.1A, 0.2A, 0.5A, 1A, 1.6A, 2A, 2.5A, 3A, 4A and 5A

| Part No. | Product No. | 1       | 10      | 25      |
|----------|-------------|---------|---------|---------|
| 645343   | K/FF        | \$12.29 | \$11.68 | \$11.09 |

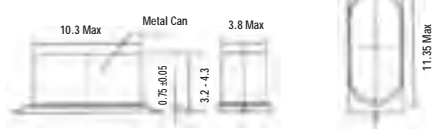
JAMECO ValuePro

## SMD HC49US Crystals

The CSM-7 is an excellent choice for SMD version of the HC49US leaded crystal. The CSM-7 has a case height of 4.3mm maximum in a resistance weld metal package.

- Frequency stability:  $\pm 100\text{ppm}$
- Drive level: 0.5mw
- Aging (first year @  $+25^\circ\text{C}$ ):  $\pm 5\text{ppm}$
- Operating temperature range:  $-40^\circ\text{C}$  to  $+85^\circ\text{C}$

Quantity SAVE



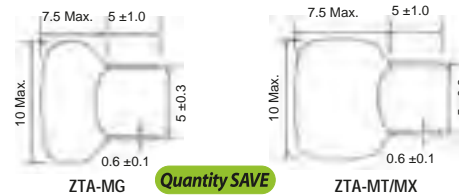
| Part No. | Product No. | Freq. (MHz) | Imped. | 1   | 10  | 100  |
|----------|-------------|-------------|--------|-----|-----|------|
| 325868   | JVP-325868  | 3.579545    | 17pF   | .83 | .70 | .53  |
| 325876   | JVP-325876  | 3.6864      | 20pF   | .85 | .72 | .60  |
| 325892   | JVP-325892  | 6.0         | 32pF   | .83 | .70 | .525 |
| 325905   | JVP-325905  | 7.3728      | 20pF   | .83 | .70 | .525 |
| 325913   | JVP-325913  | 8.0         | 18pF   | .85 | .72 | .54  |
| 325921   | JVP-325921  | 12.0        | 20pF   | .83 | .70 | .525 |
| 325930   | JVP-325930  | 14.31818    | 20pF   | .83 | .70 | .525 |
| 325956   | JVP-325956  | 18.432      | 20pF   | .83 | .70 | .525 |
| 325964   | JVP-325964  | 19.6608     | 20pF   | .83 | .70 | .525 |
| 325981   | JVP-325981  | 24.0        | 20pF   | .83 | .70 | .525 |

JAMECO ValuePro

## Ceramic Resonators

The ZTA series ceramic resonator offers wide frequency range and extended temperature range capabilities.

- Frequency accuracy:  $\pm 0.5\%$  @  $25^\circ\text{C}$
- Wide frequency range
- Extended temperature range:  $-20^\circ\text{C}$  to  $+85^\circ\text{C}$
- Temperature stability:  $\pm 0.3\%$
- Aging for 10 years:  $\pm 0.3\%$
- Withstanding voltage (5 sec.): 100V max.
- High stability
- Low profile
- Drive level: 0.5mw



- Resonant resistance: 30Ω max.

| Part No. | Comparable to: | Freq. (MHz) | Pins | 1   | 10   | 100  |
|----------|----------------|-------------|------|-----|------|------|
| 324591   | TZTA-3M58MG    | 3.58        | 2    | .28 | .255 | .191 |
| 324611   | TZTA-4.19MG    | 4.19        | 2    | .38 | .319 | .239 |
| 324700   | TZTT-4.19MG    | 4.19        | 3    | .42 | .355 | .266 |
| 324620   | TZTA-6.00MT    | 6.0         | 2    | .28 | .26  | .195 |
| 324718   | TZTT-6.00MT    | 6.0         | 3    | .31 | .284 | .213 |

- Resonant resistance: 25Ω max.

| Part No. | Comparable to: | Freq. (MHz) | Pins | 1   | 10   | 100  |
|----------|----------------|-------------|------|-----|------|------|
| 324638   | TZTA-8.00MT    | 8.0         | 2    | .28 | .26  | .195 |
| 324566   | TZTA-12.00MT   | 12.0        | 2    | .28 | .255 | .191 |
| 324654   | TZTT-12.00MT   | 12.0        | 3    | .32 | .292 | .234 |

- Resonant resistance: 55Ω max.

| Part No. | Comparable to: | Freq. (MHz) | Pins | 1   | 10   | 100  |
|----------|----------------|-------------|------|-----|------|------|
| 324574   | TZTA-16.00MT   | 16.0        | 2    | .28 | .255 | .191 |
| 324662   | TZTT-16.00MT   | 16.0        | 3    | .32 | .288 | .23  |
| 324582   | TZTA-20.00MT   | 20.0        | 2    | .29 | .259 | .194 |
| 324671   | TZTT-20.00MT   | 20.0        | 3    | .32 | .288 | .23  |

JAMECO ValuePro

## Crystal Oscillator Socket

- Can be PCB mounted without the modifications that would be needed with DIP-IC sockets
- Low profile solder tail; machine tooled on 4 pins
- Good for prototyping and PCB mounting

| Part No. | Description   | 1     | 10     | 100    | 1000   |
|----------|---------------|-------|--------|--------|--------|
| 676385   | Half can size | \$.51 | \$.434 | \$.314 | \$.272 |

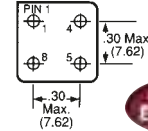


JAMECO ValuePro

## TTL Oscillators (Half Can)

### Specifications:

- Input voltage:  $+5\text{VDC} \pm 0.5\text{VDC}$
- OSC series oscillators fit into a 14-pin DIP socket P/N 676385, below left
- Frequency stability  $\pm 100\text{ppm}$
- Operating temperature:  $0^\circ\text{C}$  to  $70^\circ\text{C}$
- Output load TTL: 10 TTL max.



| Pin # | Function |
|-------|----------|
| 1     | N/C      |
| 4     | GND      |
| 5     | Output   |
| 8     | +5VDC    |

325497

| Part No. | Frequency (MHz) | Max. Input Current | Rise Fall Time | 1      | 10     | 100   |
|----------|-----------------|--------------------|----------------|--------|--------|-------|
| 325500   | 3.579545        | 15mA               | 10ns           | \$1.75 | \$1.58 | \$.99 |
| 325518   | 3.6864          | 15mA               | 10ns           | 1.35   | 1.22   | .92   |
| 325526   | 4.0             | 15mA               | 10ns           | 1.32   | 1.21   | .90   |
| 325534   | 5.0688          | 15mA               | 10ns           | 1.32   | 1.21   | .90   |
| 325542   | 6.0             | 15mA               | 10ns           | 1.32   | 1.21   | .90   |
| 325551   | 6.144           | 15mA               | 10ns           | 1.32   | 1.21   | .90   |
| 325569   | 8.0             | 30mA               | 10ns           | 1.45   | 1.33   | .99   |
| 325577   | 9.216           | 30mA               | 10ns           | 1.32   | 1.21   | .90   |
| 325585   | 9.8304          | 30mA               | 10ns           | 1.35   | 1.22   | .92   |
| 354829   | 10.0            | 25mA               | 5ns            | 1.35   | 1.27   | 1.01  |
| 325593   | 11.0592         | 30mA               | 10ns           | 1.35   | 1.22   | .92   |
| 325606   | 12.0            | 30mA               | 10ns           | 1.35   | 1.22   | 1.17  |
| 325614   | 14.31818        | 30mA               | 10ns           | 1.35   | 1.22   | .92   |
| 325622   | 16.0            | 30mA               | 10ns           | 1.35   | 1.22   | .92   |
| 325631   | 16.257          | 30mA               | 10ns           | 1.35   | 1.22   | .92   |
| 325649   | 18.432          | 30mA               | 10ns           | 1.75   | 1.59   | .98   |
| 325657   | 19.6608         | 30mA               | 10ns           | 1.35   | 1.22   | .92   |
| 325665   | 20.0            | 30mA               | 10ns           | 1.35   | 1.22   | 1.01  |
| 325673   | 25.0            | 70mA               | 5ns            | 1.35   | 1.22   | .92   |
| 325681   | 28.322          | 70mA               | 5ns            | 1.35   | 1.22   | .92   |
| 325690   | 30.0            | 46mA               | 5ns            | 1.35   | 1.22   | .92   |
| 325702   | 32.0            | 70mA               | 5ns            | 1.35   | 1.22   | .92   |
| 325711   | 32.514          | 70mA               | 5ns            | 1.35   | 1.22   | .92   |
| 325729   | 40.0            | 70mA               | 5ns            | 1.41   | 1.29   | 1.16  |
| 325737   | 48.0            | 70mA               | 5ns            | 1.49   | 1.34   | 1.01  |
| 325745   | 64.0            | 70mA               | 5ns            | 1.35   | 1.22   | 1.10  |

### Other Manufacturers

|        |        |      |      |        |        |       |
|--------|--------|------|------|--------|--------|-------|
| 325462 | 1.0    | 15mA | 10ns | \$1.35 | \$1.22 | \$.96 |
| 325471 | 1.2288 | 15mA | 10ns | 1.20   | 1.09   | .82   |
| 325489 | 1.8432 | 15mA | 10ns | 1.38   | 1.27   | .95   |
| 325497 | 2.0    | 25mA | 5ns  | 1.21   | 1.10   | .83   |
| 102779 | 10.0   | 45mA | 6ns  | 1.45   | 1.31   | 1.04  |

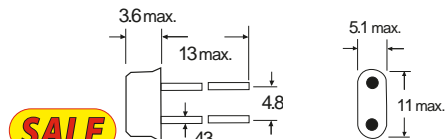
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JAMECO ValuePro

## HC49/S Case (Low Profile Crystals)

- Frequency range: 3.5 to 70.0MHz
- Operating temperature:  $-10^\circ\text{C}$  to  $+60^\circ\text{C}$
- Drive level: 0.5mW (fundamental frequency)
- Aging:  $\pm 5\text{ppm}/\text{year}$  max.
- Frequency stability tolerance:  $\pm 50\text{ppm}$

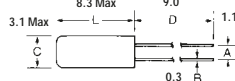


| Part No. | Comparable: | Freq. (MHz) | Imped. | Max. Resist. | 1    | 10   |
|----------|-------------|-------------|--------|--------------|------|------|
| 137816   | CY3.57LP    | 3.579545    | 17pF   | 150Ω         | .43  | .353 |
| 137832   | CY4LP       | 4.000       | 17pF   | 120Ω         | .99  | .89  |
| 137859   | CY8LP       | 8.000       | Series | 60Ω          | .63  | .57  |
| 137875   | CY11.05LP   | 11.0592     | Series | 50Ω          | 1.05 | .81  |
| 137891   | CY16LP      | 16.000      | Series | 40Ω          | .35  | .32  |

JAMECO ValuePro

## Tuning Fork

- Operating temperature range:  $-10^\circ\text{C}$  to  $+60^\circ\text{C}$
- Frequency tolerance:  $\pm 20\text{ppm}$
- Drive level: 1mw
- Aging for first year:  $\pm 3\text{ppm}$  (max.  $+25^\circ\text{C}$ )
- Frequency: 32.768kHz



| Part No. | Comparable to: | Imped. | 1   | 10   | 100  | 1000 |
|----------|----------------|--------|-----|------|------|------|
| 14584    | CY32.76        | 10.5pF | .89 | .79  | .69  | .52  |
| 325243   | JVP-325243     | 12.5pF | .24 | .219 | .159 | .142 |

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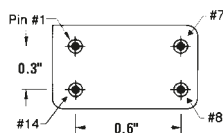
## TTL Oscillators (Full Can)

## Specifications:

- Input voltage: +5VDC  $\pm 0.5$ VDC
- OSC series oscillators fit into a 14-pin DIP socket P/N 133006, web
- Frequency stability  $\pm 100$ ppm
- Operating temperature: 0°C to 70°C
- Output load TTL: 10 TTL max.

Blue Part No. = Limited Quantity Available

Quantity SAVE



| Pin # | Function |
|-------|----------|
| 1     | N/C      |
| 7     | GND      |
| 8     | Output   |
| 14    | +5VDC    |



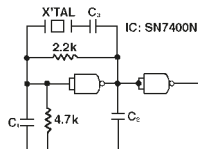
## TTL Oscillators (Full Can)

| Part No. | Frequency (MHz) | Max. Input Current | Rise Fall Time | Pricing |        |       |
|----------|-----------------|--------------------|----------------|---------|--------|-------|
|          |                 |                    |                | 1       | 10     | 100   |
| 325411   | 3.579545        | 15mA               | 10ns           | \$1.19  | \$1.08 | \$.81 |
| 325315   | 3.6864          | 15mA               | 10ns           | 1.25    | 1.15   | 1.13  |
| 354888   | 4.0             | 15mA               | 10ns           | 1.35    | 1.22   | 1.17  |
| 325323   | 5.0             | 15mA               | 10ns           | 1.19    | 1.08   | .81   |
| 325260   | 6.0             | 15mA               | 10ns           | 1.19    | 1.08   | .81   |
| 325278   | 6.1444          | 15mA               | 10ns           | 1.19    | 1.08   | .81   |
| 325358   | 7.3728          | 15mA               | 10ns           | 1.55    | 1.37   | .87   |
| 354897   | 8.0             | 30mA               | 10ns           | 1.35    | 1.22   | 1.17  |
| 325331   | 9.216           | 30mA               | 10ns           | 1.19    | 1.08   | .81   |
| 325366   | 9.8304          | 30mA               | 10ns           | 1.19    | 1.08   | .81   |
| 354870   | 11.0592         | 30mA               | 10ns           | 1.35    | 1.15   | .87   |
| 354837   | 14.31818        | 30mA               | —              | 1.21    | 1.09   | .87   |
| 354845   | 16.0            | 30mA               | 10ns           | 1.35    | 1.22   | 1.10  |
| 325286   | 16.257          | 30mA               | 10ns           | 1.19    | 1.08   | .81   |
| 325340   | 18.0            | 30mA               | 10ns           | 1.19    | 1.08   | .81   |
| 325382   | 18.432          | 30mA               | 10ns           | 1.19    | 1.08   | .81   |
| 325446   | 19.6608         | 30mA               | 10ns           | 1.19    | 1.08   | .81   |
| 354917   | 20.0            | 30mA               | 10ns           | 1.35    | 1.22   | 1.17  |
| 325391   | 24.0            | 70mA               | 10ns           | 1.19    | 1.08   | .81   |
| 325454   | 25.0            | 70mA               | 5ns            | 1.19    | 1.08   | .81   |
| 325403   | 28.322          | 70mA               | 5ns            | 1.19    | 1.08   | .81   |
| 325438   | 30.0            | 70mA               | 5ns            | 1.19    | 1.08   | .81   |
| 325294   | 35.0            | 70mA               | 5ns            | 1.19    | 1.08   | .81   |
| 354861   | 40.0            | 70mA               | 5ns            | 1.29    | 1.16   | .93   |
| 354853   | 50.0            | 70mA               | 5ns            | 1.25    | 1.12   | .89   |

## Other Manufacturers

|        |        |      |      |        |        |        |
|--------|--------|------|------|--------|--------|--------|
| 27861  | 1.0    | 7mA  | 15ns | \$2.49 | \$2.20 | \$1.43 |
| 325307 | 1.2288 | 15mA | 10ns | 1.07   | .97    | .73    |
| 27879  | 1.8432 | 7mA  | 15ns | 2.39   | 2.15   | 1.95   |
| 27924  | 2.0    | 7mA  | 15ns | 1.22   | 1.09   | .82    |
| 27967  | 4.0    | 7mA  | 10ns | 1.99   | 1.79   | 1.59   |
| 27991  | 8.0    | 15mA | 15ns | 1.99   | 1.79   | 1.59   |
| 27887  | 10.0   | 15mA | 10ns | 1.99   | 1.79   | 1.59   |
| 27895  | 12.0   | 15mA | 10ns | 1.31   | 1.21   | .98    |
| 27908  | 16.0   | 15mA | 10ns | 1.25   | 1.12   | .84    |
| 27932  | 20.0   | 17mA | 10ns | 1.79   | 1.61   | 1.21   |
| 76822  | 33.0   | 18mA | 6ns  | 1.99   | 1.79   | 1.59   |
| 153226 | 40.0   | 18mA | 6ns  | 1.05   | .96    | .87    |
| 76831  | 50.0   | 25mA | 6ns  | 1.25   | 1.13   | 1.02   |
| 325420 | 66.666 | 70mA | 5ns  | 1.22   | 1.12   | .99    |
| 76857  | 100.0  | 25mA | 3ns  | 2.49   | 2.25   | 1.95   |

- Frequency calibration tolerance:  $\pm 50$ ppm @ 25°C
- Operating temperature: -10°C to +60°C
- Drive level: 4.0mW maximum
- Shunt capacitance: 7pF maximum
- Frequency stability tolerance:  $\pm 50$ ppm from -10°C to +60°C



Application Reference (4-14MHz) (parallel resonance)

- C1: 150-470 pF
- C2: 220-820 pF
- C3: Match crystal impedance

SALE

## HC33/U Case

| Part No. | Frequency (MHz) | Impedance | Pricing |        |        |
|----------|-----------------|-----------|---------|--------|--------|
|          |                 |           | 1       | 10     | 100    |
| 14349    | 1.0             | 13pF      | \$4.95  | \$4.49 | \$3.95 |

## HC49/U (HC18/U) Case

| Part No. | Frequency (MHz) | Series | Pricing |      |      |
|----------|-----------------|--------|---------|------|------|
|          |                 |        | 1       | 10   | 100  |
| 324283   | 2.0             | Series | .94     | .85  | .64  |
| 324275   | 2.0             | 20pF   | .99     | .89  | .79  |
| 324312   | 2.5             | Series | .78     | .71  | .53  |
| 324321   | 3.0             | Series | .78     | .71  | .53  |
| 324347   | 3.6864          | 18pF   | .31     | .284 | .213 |
| 324363   | 4.0             | Series | .31     | .284 | .274 |
| 324355   | 4.032           | 20pF   | .32     | .288 | .216 |
| 324401   | 4.9152          | Series | .32     | .272 | .204 |
| 324380   | 4.9152          | 20pF   | .31     | .284 | .213 |
| 324427   | 5.0             | Series | .31     | .284 | .213 |
| 324419   | 5.0             | 20pF   | .31     | .284 | .213 |
| 324443   | 5.185           | 32pF   | .31     | .284 | .213 |
| 324460   | 6.0             | Series | .31     | .284 | .213 |
| 324451   | 6.0             | 32pF   | .31     | .284 | .213 |
| 324478   | 6.5536          | 12pF   | .31     | .284 | .213 |
| 324486   | 7.68            | 20pF   | .31     | .284 | .213 |
| 324494   | 8.0             | 18pF   | .34     | .289 | .217 |
| 324507   | 8.0             | 20pF   | .31     | .284 | .274 |
| 324515   | 8.0             | 32pF   | .31     | .284 | .213 |
| 324531   | 9.216           | Series | .31     | .284 | .213 |

## Other Manufacturers

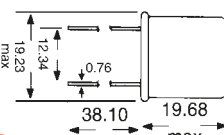
|        |          |        |     |      |     |
|--------|----------|--------|-----|------|-----|
| 102613 | 1.8432   | 18pF   | .99 | .91  | .68 |
| 102621 | 2.0      | Series | .78 | .75  | .73 |
| 101274 | 2.4576   | 32pF   | .72 | .60  | .45 |
| 14525  | 3.2768   | 18pF   | .63 | .57  | .50 |
| 14533  | 3.579545 | 18pF   | .40 | .37  | .29 |
| 14568  | 3.6864   | 18pF   | .28 | .256 | .23 |
| 14592  | 4.0      | 20pF   | .59 | .54  | .41 |
| 14621  | 4.9152   | Series | .28 | .256 | .23 |

## HC49/US Low Profile Case

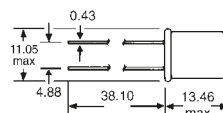
|        |        |        |     |      |      |
|--------|--------|--------|-----|------|------|
| 324988 | 3.6864 | 18pF   | .37 | .332 | .272 |
| 324961 | 4.0    | 20pF   | .36 | .325 | .31  |
| 324937 | 4.096  | 20pF   | .36 | .324 | .243 |
| 324831 | 7.3728 | 20pF   | .46 | .397 | .298 |
| 324822 | 7.3728 | 20pF   | .62 | .57  | .43  |
| 324814 | 7.68   | 20pF   | .36 | .324 | .243 |
| 324806 | 8.0    | 18pF   | .36 | .324 | .243 |
| 324785 | 8.0    | 20pF   | .36 | .324 | .243 |
| 324777 | 8.0    | 32pF   | .36 | .324 | .243 |
| 324742 | 9.216  | Series | .36 | .324 | .243 |

## Crystals

Quantity SAVE



HC33/U Case



HC49/U (HC18/U) Case

Dimensions in millimeters



HC49/US Low Profile Case

## HC49/U (HC18/U) Case (Continued)

| Part No. | Frequency (MHz) | Impedance | Pricing |      |      |
|----------|-----------------|-----------|---------|------|------|
|          |                 |           | 1       | 10   | 100  |
| 324734   | 9.8304          | 20pF      | .36     | .324 | .243 |
| 325227   | 11.0592         | 20pF      | .36     | .324 | .243 |
| 324523   | 9.216           | 20pF      | .31     | .284 | .213 |
| 324540   | 9.9304          | 20pF      | .31     | .284 | .213 |
| 324128   | 11.0592         | Series    | .31     | .284 | .213 |
| 324110   | 11.0592         | 32pF      | .31     | .22  | .199 |
| 324136   | 11.52           | Series    | .31     | .284 | .213 |
| 324144   | 11.98135        | Series    | .31     | .284 | .213 |
| 324152   | 12.288          | 20pF      | .31     | .284 | .249 |
| 324161   | 13.5168         | Series    | .31     | .284 | .213 |
| 324179   | 14.31818        | Series    | .31     | .284 | .213 |
| 324187   | 14.7456         | 20pF      | .31     | .284 | .213 |
| 324195   | 14.7456         | Series    | .31     | .284 | .213 |
| 324208   | 16.0            | 20pF      | .32     | .272 | .204 |
| 324216   | 18.0            | 20pF      | .31     | .284 | .213 |
| 324232   | 18.432          | 20pF      | .31     | .284 | .274 |
| 324241   | 19.6608         | 20pF      | .31     | .284 | .213 |
| 324259   | 19.6608         | Series    | .31     | .284 | .213 |
| 324267   | 20.0            | 20pF      | .31     | .284 | .274 |
| 324304   | 22.1184         | Series    | .31     | .284 | .213 |
| 324339   | 35.2512         | 18pF      | .31     | .284 | .213 |
| 324398   | 49.86           | 20pF      | .31     | .284 | .213 |

## Other Manufacturers

|        |          |        |     |      |      |
|--------|----------|--------|-----|------|------|
| 14681  | 6.0      | 18pF   | .28 | .256 | .23  |
| 539743 | 6.176    | 18pF   | .28 | .26  | .24  |
| 14710  | 7.3728   | 30pF   | .28 | .256 | .23  |
| 14728  | 8.0      | Series | .32 | .292 | .219 |
| 14381  | 10.0     | Series | .79 | .69  | .59  |
| 120061 | 11.0592  | Series | .80 | .71  | .68  |
| 14402  | 12.0     | Series | .80 | .68  | .50  |
| 537799 | 14.31818 | Series | .28 | .26  | .24  |
| 14453  | 16.0     | Series | .68 | .61  | .458 |
| 14517  | 20.0     | Series | .79 | .69  | .59  |

## HC49/US Low Profile Case (Cont.)

|        |         |      |     |      |      |
|--------|---------|------|-----|------|------|
| 325219 | 11.0592 | 32pF | .36 | .324 | .243 |
| 325201 | 12.0    | 20pF | .46 | .414 | .305 |
| 325198 | 12.0    | 20pF | .62 | .57  | .43  |
| 325180 | 12.0    | 32pF | .36 | .324 | .243 |
| 325171 | 12.288  | 20pF | .36 | .323 | .242 |
| 325112 | 18.432  | 20pF | .39 | .356 | .32  |
| 325104 | 18.432  | 20pF | .62 | .57  | .43  |
| 325068 | 20.0    | 20pF | .36 | .325 | .31  |
| 325059 | 20.0    | 20pF | .62 | .57  | .43  |
| 325024 | 24.0    | 20pF | .62 | .57  | .43  |
| 325016 | 24.576  | 20pF | .36 | .324 | .243 |

† Industrial temperature range (-40°C to 85°C)

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81875 (Capacitor Kit)

20-drawer component cabinet with every kit!

- Cabinet size: 6.0"L x 15.0"W x 7.9"H
- Cabinet: ABS-Black
- Drawer size: 5.5"L x 2.7"W x 1.5"H
- Weight: 4.6 to 6.4 lbs.
- Cabinet is wall-mountable or free standing

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81832 (Resistor Kit)

## Radial Electrolytic Capacitor Kit

SAVE \$10

Includes 240 pcs. (15 values)  $\pm 20\%$  Radial Electrolytic Capacitors

| 10 each           | 10 each                       | 20 each           | 20 each           | 20 each           |
|-------------------|-------------------------------|-------------------|-------------------|-------------------|
| 100 $\mu$ F @ 50V | 1000 $\mu$ F @ 16V            | 1 $\mu$ F @ 50V   | 3.3 $\mu$ F @ 50V | 22 $\mu$ F @ 50V  |
| 220 $\mu$ F @ 25V | 2200 $\mu$ F @ 25V            | 1 $\mu$ F @ 100V  | 4.7 $\mu$ F @ 50V | 47 $\mu$ F @ 50V  |
| 470 $\mu$ F @ 25V | 3300 $\mu$ F @ 25V            | 2.2 $\mu$ F @ 50V | 10 $\mu$ F @ 50V  | 100 $\mu$ F @ 25V |
| Part No.          | Description                   | Wt. (lbs.)        | 1                 | 10                |
| 81867             | 240 pcs. Radial Capacitor kit | 5.3               | \$29.95           | \$26.95           |
| 130331            | Refill for 81867 (240 pcs.)   | 0.5               | 17.95             | 16.49             |

## Axial Electrolytic Capacitor Kit

SAVE \$16

Includes 140 pcs. (10 values)  $\pm 20\%$  Axial Electrolytic Capacitors

| 10 each           | 10 each                      | 10 each            | 20 each           | 20 each           |
|-------------------|------------------------------|--------------------|-------------------|-------------------|
| 47 $\mu$ F @ 50V  | 220 $\mu$ F @ 50V            | 1000 $\mu$ F @ 25V | 1 $\mu$ F @ 50V   | 10 $\mu$ F @ 50V  |
| 100 $\mu$ F @ 50V | 470 $\mu$ F @ 50V            | 2200 $\mu$ F @ 16V | 4.7 $\mu$ F @ 50V | 2.2 $\mu$ F @ 50V |
| Part No.          | Description                  | Wt. (lbs.)         | 1                 | 10                |
| 81875             | 140 pcs. Axial Capacitor kit | 5.3                | \$37.95           | \$34.15           |

## Mylar Capacitor Kit

SAVE \$20

Includes 280 pcs. (10 values) 100V  $\pm 10\%$  Mylar Capacitors

| 10 each       | 10 each                      | 10 each      | 10 each     | 100 each    |
|---------------|------------------------------|--------------|-------------|-------------|
| .001 $\mu$ F  | .022 $\mu$ F                 | .047 $\mu$ F | .47 $\mu$ F | .01 $\mu$ F |
| .0047 $\mu$ F | .033 $\mu$ F                 | .22 $\mu$ F  | 1 $\mu$ F   | .1 $\mu$ F  |
| Part No.      | Description                  | Wt. (lbs.)   | 1           | 10          |
| 81883         | 280 pcs. Mylar Capacitor kit | 5.1          | \$38.05     | \$36.15     |
| 130358        | Refill for 81883 (280 pcs.)  | 0.3          | 19.95       | 17.95       |

## Dipped Tantalum Capacitor Kit

SAVE \$31

Includes 150 pcs. (15 values)  $\pm 20\%$  Dipped Tantalum Capacitors

| 10 each           | 10 each                         | 10 each           | 10 each          | 10 each          |
|-------------------|---------------------------------|-------------------|------------------|------------------|
| .1 $\mu$ F @ 35V  | 1 $\mu$ F @ 25V                 | 3.3 $\mu$ F @ 35V | 10 $\mu$ F @ 16V | 22 $\mu$ F @ 16V |
| .22 $\mu$ F @ 35V | 1 $\mu$ F @ 35V                 | 4.7 $\mu$ F @ 35V | 10 $\mu$ F @ 35V | 33 $\mu$ F @ 25V |
| .47 $\mu$ F @ 35V | 2.2 $\mu$ F @ 16V               | 6.8 $\mu$ F @ 35V | 15 $\mu$ F @ 25V | 47 $\mu$ F @ 25V |
| Part No.          | Description                     | Wt. (lbs.)        | 1                | 10               |
| 81841             | 150 pcs. Tantalum Capacitor kit | 4.8               | \$79.95          | \$71.95          |
| 130260            | Refill for 81841 (150 pcs.)     | 0.3               | 59.95            | 53.95            |

## Ceramic Disc Capacitor Kit

SAVE \$16

Includes 520 pcs. (10 values) 50V  $\pm 20\%$  Ceramic Disc Capacitors

| 20 each  | 20 each                        | 20 each      | 100 each     | 100 each    |
|----------|--------------------------------|--------------|--------------|-------------|
| 10pF     | 47pF                           | 470pF        | .022 $\mu$ F | .01 $\mu$ F |
| 22pF     | 100pF                          | .001 $\mu$ F | .047 $\mu$ F | .1 $\mu$ F  |
| Part No. | Description                    | Wt. (lbs.)   | 1            | 10          |
| 81859    | 520 pcs. Ceramic Capacitor kit | 5.0          | \$35.95      | \$32.35     |
| 130232   | Refill for 81841 (520 pcs.)    | 0.3          | 17.95        | 16.49       |

## Monolithic Ceramic Capacitor Kit

SAVE \$10

Includes 280 pcs. (10 values) 50V  $\pm 20\%$  Monolithic Ceramic Capacitors

| 10 each  | 10 each                           | 10 each      | 10 each     | 100 each    |
|----------|-----------------------------------|--------------|-------------|-------------|
| 22pF     | .001 $\mu$ F                      | .047 $\mu$ F | .47 $\mu$ F | .01 $\mu$ F |
| 100pF    | .0022 $\mu$ F                     | .22 $\mu$ F  | 1 $\mu$ F   | .1 $\mu$ F  |
| Part No. | Description                       | Wt. (lbs.)   | 1           | 10          |
| 171475   | 280 pcs. Monolithic Capacitor kit | 5.0          | \$29.95     | \$28.49     |
| 171483   | Refill for 171475 (280 pcs.)      | 0.3          | 21.69       | 20.66       |


## 1/8-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/8-watt 5% Resistors

| 10 each  | 10 each                        | 10 each    | 10 each | 10 each | 10 each | 50 each | 50 each |
|----------|--------------------------------|------------|---------|---------|---------|---------|---------|
| 10Ω      | 330Ω                           | 1.5kΩ      | 3.3kΩ   | 15kΩ    | 47kΩ    | 100Ω    | 4.7kΩ   |
| 47Ω      | 390Ω                           | 2kΩ        | 5.1kΩ   | 22kΩ    | 470kΩ   | 220Ω    | 10kΩ    |
| 150Ω     | 470Ω                           | 2.2kΩ      | 5.6kΩ   | 27kΩ    | 1MΩ     | 1kΩ     | 100kΩ   |
| 270Ω     | 680Ω                           | 2.7kΩ      | 6.8kΩ   | 33kΩ    | 10MΩ    |         |         |
| Part No. | Description                    | Wt. (lbs.) |         | 1       | 10      |         |         |
| 108329   | 540 pcs. 1/8-watt Resistor kit | 4.9        | .....   | \$24.95 | \$22.49 |         |         |
| 108303   | Refill for 108329 (540 pcs.)   | 0.2        | .....   | 12.95   | 11.49   |         |         |

## 1/4-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/4-watt 5% Resistors

| 10 each  | 10 each   | 10 each | 10 each | 10 each    | 10 each | 50 each | 50 each |
|----------|---|---------|---------|------------|---------|---------|---------|
| 10Ω      | 330Ω  | 1.2kΩ   | 2.7kΩ   | 15kΩ       | 47kΩ    | 100Ω    | 4.7kΩ   |
| 47Ω      | 390Ω  | 1.5kΩ   | 3.3kΩ   | 20kΩ       | 470kΩ   | 220Ω    | 10kΩ    |
| 150Ω     | 470Ω  | 2kΩ     | 5.1kΩ   | 22kΩ       | 1MΩ     | 1kΩ     | 100kΩ   |
| 270Ω     | 680Ω  | 2.2kΩ   | 5.6kΩ   | 33kΩ       | 10MΩ    |         |         |
| Part No. | Description   |         |         | Wt. (lbs.) | 1       | 10      |         |
| 81832    | 540 pcs. 1/4-watt Resistor kit  |         |         | 4.9 .....  | \$27.95 | \$24.95 |         |
| 103166   | Refill for 81832 (540 pcs.)  |         |         | 0.2 .....  | 12.95   | 11.49   |         |

## 1/2-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/2-watt 5% Resistors

| 10 each  | 10 each                        | 10 each | 10 each | 10 each | 10 each    | 50 each | 50 each |
|----------|--------------------------------|---------|---------|---------|------------|---------|---------|
| 10Ω      | 330Ω                           | 1.5kΩ   | 3.3kΩ   | 15kΩ    | 47kΩ       | 100Ω    | 4.7kΩ   |
| 47Ω      | 390Ω                           | 2kΩ     | 5.1kΩ   | 22kΩ    | 470kΩ      | 220Ω    | 10kΩ    |
| 150Ω     | 470Ω                           | 2.2kΩ   | 5.6kΩ   | 27kΩ    | 1MΩ        | 1kΩ     | 100kΩ   |
| 270Ω     | 680Ω                           | 2.7kΩ   | 6.8kΩ   | 33kΩ    | 10MΩ       |         |         |
| Part No. | Description                    |         |         |         | Wt. (lbs.) | 1       | 10      |
| 107879   | 540 pcs. 1/2-watt Resistor kit |         |         |         | 5.1 .....  | \$29.95 | \$26.95 |
| 107853   | Refill for 107879 (540 pcs.)   |         |         |         | 0.4 .....  | 14.95   | 13.49   |

## 1/2-Watt Single Turn Cermet Pot Kit

SAVE \$29

See page 83 (63P Series) for photos and specs.

Includes 100 pcs. (10 values) 1/2-watt Linear Taper Potentiometer

| 10 each         | 10 each                      | 10 each         | 10 each          | 10 each          |
|-----------------|------------------------------|-----------------|------------------|------------------|
| 63P500 $\Omega$ | 63P2k $\Omega$               | 63P10k $\Omega$ | 63P50k $\Omega$  | 63P500k $\Omega$ |
| 63P1k $\Omega$  | 63P5k $\Omega$               | 63P20k $\Omega$ | 63P100k $\Omega$ | 63P1M $\Omega$   |
| Part No.        | Description                  | Wt. (lbs.)      | 1                | 10               |
| 85032           | 100 pcs. single turn Pot kit | 4.9             | \$65.95          | \$59.35          |

## 3/4-Watt 15 Turn Cermet Pot Kit

SAVE \$32

See page 83 (43P Series) for photos and specs.

Includes 100 pcs. (10 values) 3/4-watt Linear Taper Potentiometer

| 10 each         | 10 each                  | 10 each         | 10 each          | 10 each          |
|-----------------|--------------------------|-----------------|------------------|------------------|
| 43P500 $\Omega$ | 43P2k $\Omega$           | 43P10k $\Omega$ | 43P50k $\Omega$  | 43P500k $\Omega$ |
| 43P1k $\Omega$  | 43P5k $\Omega$           | 43P20k $\Omega$ | 43P100k $\Omega$ | 43P1M $\Omega$   |
| Part No.        | Description              | Wt. (lbs.)      | 1                | 10               |
| 85041           | 100 pcs. 15 turn Pot kit | 4.9             | \$82.95          | \$74.65          |

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Let us know how we can better serve your electronics needs.  
Please send your requests to [NewProducts@Jameco.com](mailto:NewProducts@Jameco.com)



Compare Belden coaxial cables with those from the other companies who produce them and you will discover the obvious: Belden has no equal. That's because Belden coaxial cables are time-tested for performance, performance that guarantees outstanding value. Belden guarantees this level of performance because every cable is tested with equipment that simulates every known environmental and electrical performance condition. As a result, Belden coaxial cable can be counted on for positive, reliable, and trouble-free operation. Engineered in a wide selection of sizes and materials, with each offering the benefits needed for physical, electrical and cost-requirement applications. Cable choices include broadband, standard analog, precision video for analog and digital, and more. For our complete line of Belden products, please visit [www.Jameco.com/Belden](http://www.Jameco.com/Belden).

### 50Ω Transmission and Computer Cable RG8/X & RG8/U Type

#### 16 AWG stranded (19x29) .058" bare copper RG8/X type

- 95% bare copper braid shield
- Foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 81.4pF/m • Nominal impedance: 50Ω
- Nominal outer diameter: .042" • Color: black

| Part No. | Product No.   | Description      | 1       | 5       | 10      |
|----------|---------------|------------------|---------|---------|---------|
| 734255   | 9258-100-10   | 100' reel        | \$59.99 | \$54.99 | \$49.99 |
| 734257   | 9258-500-10   | 500' reel        | 346.55  | 314.47  | 298.73  |
| 734256   | 9258-1000-10  | 1000' reel       | 601.15  | 559.17  | 538.20  |
| 734259   | 9258-U500-10  | 500' unreel box  | 357.05  | 324.01  | 307.79  |
| 734258   | 9258-U1000-10 | 1000' unreel box | 619.35  | 576.12  | 554.52  |

#### 13 AWG stranded (7 x 21) .085" bare copper RG8/U type

- 97% bare copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 93.5pF/m • Nominal impedance: 52Ω
- Nominal outer diameter: .405" • Color: black

| Part No. | Product No.  | Description | 1        | 5        | 10       |
|----------|--------------|-------------|----------|----------|----------|
| 732849   | 8237-100-10  | 100' reel   | \$166.05 | \$151.09 | \$138.36 |
| 732857   | 8237-500-10  | 500' reel   | 629.09   | 571.86   | 549.03   |
| 732865   | 8237-1000-10 | 1000' reel  | 1,135.85 | 1,041.29 | 961.12   |

#### 11 AWG stranded (7 x 19) .108" bare copper RG8/U type

- Nominal outer diameter: .285" • Color: black
- Foam polyethylene insulation & black PVC jacket • 97% bare copper braid shield
- Nominal capacitance: 85.3pF/m • Nominal impedance: 50Ω

| Part No. | Product No.  | Description | 1        | 5        | 10       |
|----------|--------------|-------------|----------|----------|----------|
| 732751   | 8214-100-10  | 100' reel   | \$178.55 | \$162.30 | \$148.77 |
| 732769   | 8214-500-10  | 500' reel   | 780.65   | 709.66   | 650.05   |
| 732777   | 8214-1000-10 | 1000' reel  | 1,303.55 | 1,203.17 | 1,117.27 |

### 50Ω Transmission and Computer Cable RG58A/U Type

#### 20 AWG solid .032" bare copper

- Nominal outer diameter: .193" • Color: black
- Polyethylene insulation and black PVC jacket
- 95% tinned copper braid shield
- Nominal capacitance: 93.5pF/m • Nominal impedance: 51.5Ω

| Part No. | Product No.   | Description      | 1       | 5       | 10      |
|----------|---------------|------------------|---------|---------|---------|
| 732873   | 8240-100-10   | 100' reel        | \$42.15 | \$38.21 | \$34.73 |
| 732882   | 8240-500-10   | 500' reel        | 166.75  | 151.50  | 144.98  |
| 732900   | 8240-1000-10  | 1000' reel       | 358.25  | 328.38  | 303.14  |
| 734176   | 8240-U500-10  | 500' unreel box  | 202.99  | 184.17  | 144.98  |
| 734175   | 8240-U1000-10 | 1000' unreel box | 333.29  | 302.42  | 287.33  |

#### 20 AWG stranded (19 x 33) .035" tinned copper

- 95% tinned copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 101pF/m • Nominal impedance: 50Ω
- Nominal outer diameter: .192" • Color: black

| Part No. | Product No.  | Description | 1       | 5       | 10      |
|----------|--------------|-------------|---------|---------|---------|
| 732937   | 8259-100-10  | 100' reel   | \$50.65 | \$45.93 | \$41.73 |
| 732945   | 8259-500-10  | 500' reel   | 174.95  | 164.95  | 159.95  |
| 732953   | 8259-1000-10 | 1000' reel  | 334.09  | 318.20  | 303.05  |

#### 20 AWG stranded (19 x 32) .037" tinned copper

- 96% tinned copper braid shield
- Foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 86.9pF/m • Nominal impedance: 53.5Ω
- Nominal outer diameter: .194" • Color: black

| Part No. | Product No. | Description | 1       | 5       | 10      |
|----------|-------------|-------------|---------|---------|---------|
| 732814   | 8219-100-10 | 100' reel   | \$39.99 | \$37.49 | \$34.99 |
| 732822   | 8219-500-10 | 500' reel   | 257.99  | 234.47  | 214.89  |

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product

♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

### 50Ω Transmission and Computer Cable RG174/U Type

#### 26 AWG stranded (7 x 34) .019" bare copper-covered steel

- 90% tinned copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 101pF/m
- Nominal impedance: 50Ω
- Nominal outer diameter: .110" • Color: black

| Part No. | Product No.  | Description | 1       | 5       | 10      |
|----------|--------------|-------------|---------|---------|---------|
| 732785   | 8216-100-10  | 100' reel   | \$41.15 | \$39.22 | \$37.35 |
| 732793   | 8216-500-10  | 500' reel   | 139.99  | 132.59  | 129.49  |
| 732806   | 8216-1000-10 | 1000' reel  | 278.85  | 263.29  | 258.97  |

### 93Ω Coax Cable RG62A/U Type

#### 22 AWG solid 0.025" bare copper-covered steel

- Insulation: semi-solid PE (polyethylene) 0.146" diameter
- Outer shield: braid bare copper 95% coverage
- Outer jacket: HDPE (high density polyethylene)
- Nominal impedance: 93Ω
- Tracer: solid 0.242" diameter • Color: black
- Nominal inductance: 0.116μH/ft. • Nominal capacitance: 13.5pF/ft.
- Nominal DCR: 41.2Ω/1000' • Max. operating voltage (non-UL): 300Vrms

| Part No. | Product No.  | Description | 1        | 5        | 10       |
|----------|--------------|-------------|----------|----------|----------|
| 447849   | 9228-010-500 | 500' reel   | \$173.35 | \$164.65 | \$156.45 |

### 75Ω Broadband Coax CATV Cable RG6/U Type

#### 18 AWG solid .040" bare copper-covered steel

- Duobond® II +60% aluminum braid shield
- Gas injected foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 53.1pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .270" • Color: black

| Part No. | Product No.    | Description      | 1       | 5       | 10      |
|----------|----------------|------------------|---------|---------|---------|
| 733270   | 9116-100-10    | 100' reel        | \$20.89 | \$17.56 | \$16.68 |
| 733278   | 9116-500-10    | 500' reel        | 65.55   | 57.37   | 54.50   |
| 733286   | 9116-1000-10   | 1000' reel       | 119.45  | 113.48  | 107.80  |
| 447831   | 9116-U500-010  | 500' unreel box  | 55.59   | 51.11   | 48.55   |
| 447822   | 9116-U1000-010 | 1000' unreel box | 80.79   | 74.99   | 71.73   |

#### 18 AWG solid .040" bare copper-covered steel

- Duobond® IV quad shield
- Nominal outer diameter: .298"
- Gas injected foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 53.1pF/m • Nominal impedance: 75Ω • Color: black

| Part No. | Product No.    | Description      | 1       | 5       | 10      |
|----------|----------------|------------------|---------|---------|---------|
| 732734   | 1189A-100-10   | 100' reel        | \$40.85 | \$36.73 | \$33.05 |
| 733403   | 1189A-500-10   | 500' reel        | 83.99   | 67.87   | 64.48   |
| 732742   | 1189A-1000-10  | 1000' reel       | 183.45  | 174.27  | 165.55  |
| 734053   | 1189A-U500-10  | 500' unreel box  | 100.99  | 81.61   | 77.53   |
| 447110   | 1189A-U1000-10 | 1000' unreel box | 117.89  | 107.96  | 102.83  |

### Series 59 MATV Cable

#### 20 AWG solid 0.032 bare copper covered steel

- Insulation: gas-injected FPE (foam polyethylene 0.144" diameter)
- Outer shield: Duobond® II tape/braid 40% coverage
- Outer jacket: PVC
- UL1685 flame test • Color: black
- Nominal impedance: 75Ω • Nominal inductance: 0.097μH/ft.
- Nominal capacitance: 16.2pF/ft. • Nominal DCR: 44.5Ω/1000'

| Part No. | Product No.    | Description  | 1       | 5       | 10      |
|----------|----------------|--------------|---------|---------|---------|
| 447806   | 9100-010-U1000 | 1000' unreel | \$68.65 | \$64.99 | \$60.92 |



## Belden Coaxial Cable (Continued)

### Precision Video Cable for Analog and Digital RG6 Type

#### 18 AWG solid .040" bare copper

- Gas injected foam HDPE insulation, PVC jacket
- Nominal capacitance: 53.1pF/m • Nominal impedance: 75Ω
- DuoFoil® +95% tinned copper braid shield • Nominal outer diameter: .275"

| Part No. | Product No.   | Description        | 1       | 5       | 10      |
|----------|---------------|--------------------|---------|---------|---------|
| 734100   | 1694A-100-10  | 100' reel (black)  | \$66.49 | \$55.86 | \$53.07 |
| 734156   | 1694A-500-10  | 500' reel (black)  | 267.49  | 254.78  | 242.65  |
| 734155   | 1694A-1000-10 | 1000' reel (black) | 535.05  | 509.56  | 485.29  |
| 447267   | 1694A-1000-06 | 1000' reel (blue)  | 433.79  | 388.73  | 331.84  |
| 447275   | 1694A-1000-08 | 1000' reel (gray)  | 485.95  | 437.34  | 393.60  |

### Direct Broadcast Satellite RG6 Type Cable

#### 18 AWG solid .040" bare copper

- DuoBond® II +60% aluminum braid • Color: black
- Gas injected foam polyethylene insulation, PVC jacket
- Nominal capacitance: 16.2pF/m • Nominal impedance: 75Ω

| Part No. | Product No.     | Description      | 1       | 5       | 10      |
|----------|-----------------|------------------|---------|---------|---------|
| 734157   | 1829AC-100-10   | 100' reel        | \$15.35 | \$14.61 | \$13.91 |
| 734178   | 1829AC-500-10   | 500' reel        | 60.45   | 57.57   | 54.83   |
| 734158   | 1829AC-1000-10  | 1000' reel       | 123.25  | 110.88  | 105.34  |
| 447312   | 1829A-U1000-010 | 1000' unreel box | 82.59   | 79.99   | 73.28   |

### 75Ω Standard Analog Video Cable RG59/U Type

#### 23 AWG solid .023" bare copper

- 95% bare copper braid shield
- Polyethylene insulation and black PVC jacket • Nominal outer diameter: .242"
- Nominal capacitance: 67.3pF/m • Nominal impedance: 75Ω • Color: black

| Part No. | Product No.   | Description      | 1       | 5       | 10      |
|----------|---------------|------------------|---------|---------|---------|
| 732902   | 8241-100-10   | 100' reel        | \$53.75 | \$50.46 | \$46.52 |
| 732911   | 8241-500-10   | 500' reel        | 141.55  | 132.81  | 131.83  |
| 447478   | 8241-U500-10  | 500' unreel box  | 155.15  | 139.62  | 125.65  |
| 447460   | 8241-U1000-10 | 1000' unreel box | 305.49  | 274.92  | 247.42  |

#### 22 AWG stranded (7 x 30) .030" bare copper

- 95% bare copper braid shield
- Foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 56.7pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .241" • Color: black

| Part No. | Product No.   | Description      | 1       | 5       | 10      |
|----------|---------------|------------------|---------|---------|---------|
| 732654   | 9259-100-10   | 100' reel        | \$74.79 | \$71.25 | \$67.86 |
| 732662   | 9259-500-10   | 500' reel        | 196.05  | 186.73  | 177.84  |
| 732671   | 9259-1000-10  | 1000' reel       | 383.19  | 369.43  | 355.67  |
| 734071   | 9259-U500-10  | 500' unreel box  | 196.85  | 187.20  | 177.84  |
| 734070   | 9259-U1000-10 | 1000' unreel box | 383.19  | 369.43  | 355.67  |

### Broadband Coax (Headend/Video Cables)

#### 20 AWG solid .031" bare copper

- Nominal capacitance 68.9pF/m • Color: black
- Nominal outer diameter: .305" • Nominal impedance: 75Ω
- 98% tinned copper double braid shield • Polyethylene insulation and jacket

| Part No. | Product No.  | Description | 1       | 5       | 10      |
|----------|--------------|-------------|---------|---------|---------|
| 732962   | 8281-100-10  | 100' reel   | \$85.49 | \$72.06 | \$68.46 |
| 732980   | 8281-500-10  | 500' reel   | 483.25  | 414.18  | 393.55  |
| 732988   | 8281-1000-10 | 1000' reel  | 906.39  | 826.46  | 787.10  |

### 50Ω RG58A/U Ethernet Coax (Thinnet 10 Base2 Ethernet)

#### 20 AWG stranded (19 x 32) tinned copper, plenum

- Insulation: FFEP (foam fluorinated ethylene propylene, 0.095" diameter)
- Outer shield: DuoBond® II tape/braid 93% coverage
- NFPA 262 UL flame test
- Color: light gray
- Outer jacket: PVDF (fluorocopolymer) • IEEE802.3 10Base2 specification
- Nominal impedance: 50Ω • Nominal capacitance: 25.4pF/ft.
- Nominal inductance: 0.0635μH/ft. • Nominal DCR: 8.8Ω/1000'

| Part No. | Product No.    | Description | 1        | 5        | 10       |
|----------|----------------|-------------|----------|----------|----------|
| 426001   | 89907-E4X-1000 | 1000' reel  | \$659.59 | \$593.62 | \$534.25 |



## Belden Coaxial Cable (Continued)

### RG59 Type Security Coaxial Cable

#### 20 AWG solid bare copper conductor

- 95% bare copper braid shield • Nominal impedance: 75Ω
- Foam polyolefin insulation and black UV resistant PVC jacket
- Impregnated with CoreGuard® flame retardant flooding compound
- Shielded or flooded for use in underground ducts
- Surveillance and CCTV applications • Color: black

| Part No. | Product No.    | Description | 1       | 5       | 10      |
|----------|----------------|-------------|---------|---------|---------|
| 734159   | 543945-100-10  | 100' reel   | \$19.65 | \$18.70 | \$17.81 |
| 734161   | 543945-500-10  | 500' reel   | 89.09   | 84.85   | 80.81   |
| 734160   | 543945-1000-10 | 1000' reel  | 142.29  | 135.52  | 129.07  |

### Standard Analog Video Cable 75Ω Miniature Coax

#### 27 AWG stranded (7x35) .017" bare copper-covered steel

- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 67.3pF/m • Color: black
- Nominal impedance: 75Ω • Nominal outer diameter: .100"

| Part No. | Product No.   | Description      | 1        | 5        | 10       |
|----------|---------------|------------------|----------|----------|----------|
| 734174   | 8218-U500-10  | 500' unreel box  | \$217.09 | \$196.96 | \$185.14 |
| 734173   | 8218-U1000-10 | 1000' unreel box | 534.15   | 484.61   | 460.38   |

#### 20 AWG solid .032" solid bare copper

- Duofoil® +95% tinned copper braid shield
- Gas injected foam HDPE insulation and PVC jacket
- Nominal capacitance: 53.5pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .234" • Color: black

| Part No. | Product No.   | Description | 1       | 5       | 10      |
|----------|---------------|-------------|---------|---------|---------|
| 734087   | 1505A-100-10  | 100' reel   | \$51.05 | \$42.89 | \$40.75 |
| 734089   | 1505A-500-10  | 500' reel   | 214.35  | 192.80  | 183.62  |
| 734088   | 1505A-1000-10 | 1000' reel  | 435.29  | 382.27  | 364.07  |



## Belden Speaker Cable

These speaker cables are used to connect receivers or power amplifiers to speakers & are also used for the internal wiring of the speakers. Belden speaker cables utilize only high-conductivity copper produced by a process called Electrolytic Tough Pitch (ETP). This refining process produces a conductor that is 99.95% pure copper resulting in high-conductivity per ASTM B115.

### Electrolytic Tough Pitch (ETP) High Conductivity Copper Speaker Cables

- 2-conductor stranded • Clear PVC jacket
- Parallel (1) tinned (1) bare • PVC insulation

#### 18 AWG stranded (16 x 30)

| Part No. | Product No.    | Description      | 1       | 5       | 10      |
|----------|----------------|------------------|---------|---------|---------|
| 732574   | 9708-100-368   | 100' reel        | \$25.75 | \$24.53 | \$23.36 |
| 732591   | 9708-1000-368  | 1000' reel       | 293.09  | 279.15  | 265.86  |
| 734154   | 9708-U500-368  | 500' unreel box  | 181.95  | 172.33  | 162.77  |
| 734081   | 9708-U1000-368 | 1000' unreel box | 339.85  | 324.70  | 311.39  |

#### 14 AWG stranded (19 x 27)

| Part No. | Product No.   | Description | 1       | 5       | 10      |
|----------|---------------|-------------|---------|---------|---------|
| 732603   | 9717-100-368  | 100' reel   | \$65.49 | \$55.09 | \$49.45 |
| 733430   | 9717-500-368  | 500' reel   | 255.69  | 242.25  | 218.04  |
| 732612   | 9717-1000-368 | 1000' reel  | 539.85  | 509.72  | 458.88  |

#### 12 AWG stranded (65 x 30)

| Part No. | Product No.   | Description | 1        | 5        | 10       |
|----------|---------------|-------------|----------|----------|----------|
| 732630   | 9718-100-368  | 100' reel   | \$126.35 | \$106.13 | \$100.82 |
| 732638   | 9718-500-368  | 500' reel   | 581.05   | 553.38   | 527.03   |
| 732646   | 9718-1000-368 | 1000' reel  | 1,341.25 | 1,262.34 | 1,183.44 |

## Commercial Customers

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† This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.





## Belden Paired Cable

Belden cable products are manufactured in a variety of gauge sizes, dimensions, insulation materials, shielding configurations, and jacketing materials including PVC, Plenum and High-Temperature versions to meet the technical requirements of many different types of systems. Paired cables allow balanced signal transmission, which results in lower crosstalk through common mode rejection. Due to the improved noise immunity of twisted pairs, they generally permit higher data speeds than other multi-conductor cables. For our complete line of Belden products, please visit [www.Jameco.com/Belden](http://www.Jameco.com/Belden).























- Chrome PVC jacket
- Tinned copper
- Twisted pairs
- Tinned copper drain wire
- Overall 100% BELDFOIL® shield (for shielded cables)

### High-Temperature Control, Instrumentation Cable and Computer Cable

**24 AWG stranded (7 x 32) shielded with 24 AWG stranded TC drain wire**

- Semi-rigid PVC insulation
- Nominal DCR: 24Ω/m
- Nominal impedance: 75Ω
- Color: chrome







| Part No. | Product No.   | No. of Pairs | Description            | 1       | 5       | 10      |
|----------|---|--------------|------------------------|---------|---------|---------|
| 732710   | 9501-100-60      | 1            | 100' reel .....        | \$23.85 | \$21.64 | \$19.68 |
| 732718   | 9501-500-60      | 1            | 500' reel .....        | 92.05   | 87.14   | 82.31   |
| 732726   | 9501-1000-60     | 1            | 1000' reel .....       | 174.35  | 164.62  | 159.10  |
| 734074   | 9501-U500-60     | 1            | 500' unreel box .....  | 108.79  | 103.00  | 97.29   |
| 734073   | 9501-U1000-60    | 1            | 1000' unreel box ..... | 175.39  | 167.06  | 159.10  |
| 732452   | 9502-100-60      | 2            | 100' reel .....        | 27.39   | 24.92   | 22.64   |
| 732470   | 9502-500-60      | 2            | 500' reel .....        | 140.39  | 127.60  | 116.96  |
| 732478   | 9502-1000-60     | 2            | 1000' reel .....       | 283.49  | 263.03  | 249.88  |
| 734076   | 9502-U500-60     | 2            | 500' unreel box .....  | 155.99  | 141.75  | 129.94  |
| 732486   | 9503-100-60      | 3            | 100' reel .....        | 38.95   | 36.97   | 35.12   |
| 732494   | 9503-500-60      | 3            | 500' reel .....        | 137.99  | 130.72  | 123.48  |
| 732507   | 9503-1000-60     | 3            | 1000' reel .....       | 359.05  | 341.92  | 325.64  |
| 734078   | 9503-U500-60     | 3            | 500' unreel box .....  | 226.39  | 214.44  | 202.58  |
| 734077   | 9503-U1000-60    | 3            | 1000' unreel box ..... | 408.35  | 385.65  | 366.38  |
| 732515   | 9504-100-60      | 4            | 100' reel .....        | 52.19   | 49.69   | 47.32   |
| 732523   | 9504-500-60      | 4            | 500' reel .....        | 213.99  | 207.99  | 198.99  |
| 732532   | 9504-1000-60     | 4            | 1000' reel .....       | 415.15  | 406.56  | 397.96  |
| 732550   | 9505-100-60      | 5            | 100' reel .....        | 58.39   | 55.63   | 52.98   |
| 732558   | 9505-500-60      | 5            | 500' reel .....        | 245.75  | 234.02  | 222.88  |
| 732566   | 9505-1000-60    | 5            | 1000' reel .....       | 370.55  | 339.72  | 313.56  |
| 734079   | 9505-U500-60   | 5            | 500' unreel box .....  | 311.25  | 294.84  | 278.43  |
| 734080   | 9505-U1000-60  | 5            | 1000' unreel box ..... | 589.69  | 556.87  | 529.03  |

### Low Capacitance Computer Cable

**24 AWG stranded (7 x 32) shielded with 24 AWG stranded TC drain wire**

- Datalene® insulation, chrome PVC jacket
- Nominal DCR: 24Ω/m
- Nominal impedance: 100Ω
- Color: chrome








| Part No. | Product No.   | No. of Pairs | Description      | 1       | 5       | 10      |
|----------|---|--------------|------------------|---------|---------|---------|
| 734179   | 1419A-100-60   | 2            | 100' reel .....  | \$24.99 | \$22.49 | \$19.99 |
| 734086   | 1419A-500-60   | 2            | 500' reel .....  | 144.05  | 131.99  | 113.03  |
| 734085   | 1419A-1000-60  | 2            | 1000' reel ..... | 264.55  | 242.43  | 223.76  |
| 447128   | 1422A-060-500  | 5            | 500' reel .....  | 295.85  | 266.24  | 239.61  |

### Audio, Control, and Instrumentation Cable Non-Plenum

**22 AWG stranded (7 x 30) shielded with 22 AWG stranded TC drain wire**



- Polypropylene insulation
- Paper wrap
- Black PVC jacket
- Nominal capacitance: 111pF/m
- Nominal outer diameter: 0.138"
- Color: chrome



| Part No. | Product No.   | No. of Pairs | Description                | 1       | 5       | 10      |
|----------|---|--------------|----------------------------|---------|---------|---------|
| 733112   | 8451-100-10    | 1            | 100' reel (black).....     | \$19.99 | \$18.59 | \$18.13 |
| 733139   | 8451-1000-10   | 1            | 1000' reel (black) .....   | 197.09  | 177.39  | 159.65  |
| 734063   | 8451-U500-10   | 1            | 500' unreel box (black) .. | 113.65  | 103.31  | 94.69   |
| 734062   | 8451-U1000-10  | 1            | 1000' unreel box (blk) ..  | 202.85  | 185.95  | 171.62  |
| 447531   | 8451-U1000-08  | 1            | 1000' unreel box (gray) .. | 202.85  | 185.95  | 171.62  |

We offer free technical documents for most of the products we carry. Find them easily on the product specification pages at [www.Jameco.com](http://www.Jameco.com)

▲ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)





| Color Code Legend        |
|--------------------------|
| New Sale Lower\$ QtySave |

### Audio, Control, and Instrumentation Cable Non-Plenum (Cont.)

**22 AWG stranded (7 x 30) shielded with 22 AWG stranded TC drain wire**

- Polypropylene insulation
- PVC jacket
- Nominal capacitance: 111pF/m
- Nominal outer diameter: 0.135"
- Color: gray







| Part No. | Product No.   | No. of Pairs | Description         | 1       | 5       | 10      |
|----------|---|--------------|---------------------|---------|---------|---------|
| 732689   | 9451-100-08    | 1            | 100' reel .....     | \$24.99 | \$22.49 | \$19.99 |
| 732697   | 9451-500-08    | 1            | 500' reel .....     | 92.85   | 86.43   | 82.31   |
| 733412   | 9451-T1000-08  | 1            | 1000' reel .....    | 163.09  | 155.34  | 147.94  |
| 447881   | 9451-U1000-10  | 1            | 1000' unreel box .. | 153.29  | 152.00  | 147.26  |

**22 AWG stranded (7 x 30) shielded with 22 AWG stranded TC drain wire**

- Polyethylene insulation and chrome PVC jacket
- Nominal capacitance: 79pF/m
- Nominal outer diameter: 0.175"
- Color: chrome








| Part No. | Product No.   | No. of Pairs | Description          | 1        | 5        | 10       |
|----------|---|--------------|----------------------|----------|----------|----------|
| 734191   | 8761-500-60    | 1            | 500' reel .....      | \$147.79 | \$140.13 | \$108.55 |
| 734190   | 8761-1000-60   | 1            | 1000' reel .....     | 285.35   | 261.58   | 241.45   |
| 734193   | 8761-U500-60   | 1            | 500' unreel box .... | 150.25   | 134.42   | 126.51   |
| 734192   | 8761-U1000-60  | 1            | 1000' unreel box ..  | 271.49   | 232.42   | 221.41   |

**22 AWG stranded (7 x 30) shielded with 24 AWG stranded TC drain wire**

- Polypropylene insulation
- Nominal capacitance: 115pF/m
- Nominal outer diameter: 0.168"
- Color: chrome





| Part No. | Product No.   | No. of Pairs | Description          | 1       | 5       | 10      |
|----------|---|--------------|----------------------|---------|---------|---------|
| 734180   | 8723-100-60    | 2            | 100' reel .....      | \$32.69 | \$31.15 | \$29.67 |
| 734182   | 8723-500-60    | 2            | 500' reel .....      | 114.15  | 103.55  | 94.09   |
| 734181   | 8723-1000-60   | 2            | 1000' reel .....     | 255.55  | 249.99  | 244.69  |
| 734184   | 8723-U500-60   | 2            | 500' unreel box .... | 131.95  | 125.35  | 119.08  |
| 734183   | 8723-U1000-60  | 2            | 1000' unreel box ..  | 324.59  | 306.79  | 289.79  |

**20 AWG stranded (7 x 28) unshielded**

- Chrome PVC jacket
- Color: chrome






| Part No. | Product No.   | No. of Pairs | Description          | 1       | 2       | 5       |
|----------|---|--------------|----------------------|---------|---------|---------|
| 734172   | 8205-U500-60   | 1            | 500' unreel box .... | \$97.79 | \$85.70 | \$81.41 |
| 734171   | 8205-U1000-60  | 1            | 1000' unreel box ..  | 223.35  | 204.74  | 188.99  |

**20 AWG stranded (7 x 28) shielded with 22 AWG stranded TC drain wire**

- Semi-rigid PVC insulation and overall chrome PVC jacket
- Nominal capacitance: 180pF/m
- Nominal outer diameter: 0.300"
- Color: chrome









| Part No. | Product No.  | No. of Pairs | Description          | 1       | 5       | 10      |
|----------|--|--------------|----------------------|---------|---------|---------|
| 734260   | 9402-100-60   | 2            | 100' reel .....      | \$64.99 | \$62.49 | \$59.99 |
| 734262   | 9402-U500-60  | 2            | 500' unreel box .... | 409.29  | 381.99  | 354.70  |
| 734261   | 9402-1000-60  | 2            | 1000' reel .....     | 944.85  | 865.45  | 798.82  |

**18 AWG stranded (16 x 30) shielded with 20 AWG stranded TC drain wire**

- Tinned copper, twisted pair
- Polyethylene insulation with chrome PVC jacket
- Nominal capacitance: 79pF/m
- Nominal outer diameter: 0.222"
- Color: chrome



| Part No. | Product No.   | No. of Pairs | Description          | 1       | 5       | 10      |
|----------|---|--------------|----------------------|---------|---------|---------|
| 734185   | 8760-100-60    | 1            | 100' reel .....      | \$34.99 | \$32.49 | \$29.99 |
| 447671   | 8760-250-60    | 1            | 250' reel .....      | 76.39   | 69.33   | 58.15   |
| 734187   | 8760-500-60    | 1            | 500' reel .....      | 158.29  | 143.63  | 136.44  |
| 734186   | 8760-1000-60   | 1            | 1000' reel .....     | 384.25  | 364.06  | 345.85  |
| 734189   | 8760-U500-60   | 1            | 500' unreel box .... | 150.39  | 143.26  | 136.44  |
| 734188   | 8760-U1000-60  | 1            | 1000' unreel box ..  | 300.85  | 286.52  | 272.88  |

Due to extraordinary copper market price fluctuations, cable and wire prices are subject to change.



RoHS Compliant Product  
RoHS Also Available

Details on Page 1

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |



## Belden Paired Cable (Continued)

### Unshielded Audio, Control and Instrumentation Cable

#### 16 AWG stranded (19 x 29) tinned copper

- Insulation & outer jacket: PVC
- UL1685 FT4 flame test
- Nominal inductance: 0.184µH/ft.
- Nominal capacitance: 16.4pF/ft.
- Max. operating voltage: 300Vrms
- Color: Chrome
- Nominal DCR: 4.49Ω/1000'
- Max. current: 7.1A per conductor

| Part No. | Product No.    | Pairs | Description | 1        | 5        | 10       |
|----------|----------------|-------|-------------|----------|----------|----------|
| 447540   | 8471-060-1000▲ | 1     | 1000' reel  | \$466.65 | \$443.29 | \$421.09 |

#### 14 AWG stranded (42 x 30) tinned copper

- Insulation & outer jacket: PVC
- UL1685 flame test
- Nominal inductance: 0.19µH/ft.
- Nominal capacitance: 33pF/ft.
- Max. operating voltage: 300Vrms
- Color: Chrome
- Nominal DCR: 2.86Ω/1000'
- Max. current: 9.6A per conductor

| Part No. | Product No.   | Pairs | Description | 1        | 5        | 10       |
|----------|---------------|-------|-------------|----------|----------|----------|
| 447558   | 8473-060-500▲ | 1     | 500' unreel | \$427.65 | \$384.86 | \$346.37 |

### Paired Line Level Analog Audio Cable

#### 20 AWG stranded (7 x 28) with 20 AWG stranded TC drain wire

- Polyethylene insulation with chrome PVC jacket
- Nominal capacitance: 89pF/m
- Nominal outer diameter: 0.204"
- Color: chrome

| Part No. | Product No.     | Pairs | Description      | 1       | 5       | 10      |
|----------|-----------------|-------|------------------|---------|---------|---------|
| 734195   | 8762-100-60 R   | 1     | 100' reel        | \$32.95 | \$32.60 | \$32.50 |
| 734197   | 8762-500-60 R   | 1     | 500' reel        | 149.75  | 142.61  | 135.82  |
| 734196   | 8762-1000-60 R  | 1     | 1000' reel       | 299.49  | 285.22  | 271.64  |
| 734199   | 8762-U500-60 R  | 1     | 500' unreel box  | 149.75  | 142.61  | 135.82  |
| 734198   | 8762-U1000-60 R | 1     | 1000' unreel box | 335.45  | 316.83  | 298.19  |

#### 16 AWG stranded (19 x 29) shielded with 18 AWG stranded TC drain wire

- Polyethylene insulation
- Nominal capacitance: 75pF/m
- Nominal outer diameter: 0.313"
- Color: chrome

| Part No. | Product No.     | Pairs | Description      | 1       | 5       | 10      |
|----------|-----------------|-------|------------------|---------|---------|---------|
| 733147   | 8719-100-60 R   | 1     | 100' reel        | \$59.99 | \$54.99 | \$49.99 |
| 733155   | 8719-500-60 R   | 1     | 500' reel        | 267.09  | 242.34  | 230.32  |
| 733163   | 8719-1000-60 R  | 1     | 1000' reel       | 488.25  | 474.44  | 460.64  |
| 734065   | 8719-U500-60 R  | 1     | 500' unreel box  | 253.95  | 241.84  | 230.32  |
| 734064   | 8719-U1000-60 R | 1     | 1000' unreel box | 579.05  | 545.91  | 512.83  |

#### 14 AWG stranded (19 x 27) shielded with 16 AWG stranded TC drain wire

- Polyethylene insulation
- Nominal capacitance: 79pF/m
- Nominal outer diameter: 0.355"
- Color: chrome

| Part No. | Product No.    | Pairs | Description     | 1       | 5       | 10      |
|----------|----------------|-------|-----------------|---------|---------|---------|
| 733172   | 8720-100-60 R  | 1     | 100' reel       | \$59.99 | \$51.55 | \$48.97 |
| 733190   | 8720-500-60 R  | 1     | 500' reel       | 298.85  | 288.55  | 274.81  |
| 733198   | 8720-1000-60 R | 1     | 1000' reel      | 621.75  | 578.37  | 563.91  |
| 734066   | 8720-U500-60 R | 1     | 500' unreel box | 416.99  | 389.78  | 362.59  |

### Two Conductor Low Impedance Cable

#### 20 AWG stranded (26 x 34) high conductivity tinned copper

- Insulation: EPDM 0.083" diameter
- Overall cabling separator: rayon braid
- Outer shield: braid tinned copper 85% coverage
- Outer shield separator material: cotton wrap
- Outer jacket: EPDM (ethylene propylene diene monomer rubber)
- Nominal impedance: 52Ω
- Nominal capacitance: 30pF/ft.
- Max. operating voltage: 600Vrms
- Color: black
- Nominal inductance: 0.18µH/ft.
- Nominal DCR: 3.06Ω/1000'
- Max. current: 4A per conductor

| Part No. | Product No.   | Pairs | Description | 1        | 5        | 10      |
|----------|---------------|-------|-------------|----------|----------|---------|
| 425922   | 8412-010-100▲ | 1     | 100' reel   | \$117.45 | \$105.70 | \$95.13 |

▲ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product

⊕ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



## Belden Paired Cable (Continued)

### New Generation® Commercial Audio System Cable

#### 18 AWG stranded (7 x 26) bare copper with rip cord (unshielded)

- Suitable applications: addressable fire alarm systems, initiating circuits, notification circuits
- Insulation: PVC 0.010" diameter
- UL1666 vertical shaft flame test
- Nominal capacitance: 30pF/ft.
- Max. operating voltage: 300Vrms
- Color: gray
- Outer jacket: PVC with rip cord
- Nominal inductance: 0.16µH/ft.
- Nominal DCR: 6.5Ω/1000'
- Max. current: 5A per conductor

| Part No. | Product No.       | Pairs | Description  | 1       | 5       | 10      |
|----------|-------------------|-------|--------------|---------|---------|---------|
| 447398   | 5300UE-008-U500▲  | 1     | 500' unreel  | \$41.75 | \$39.59 | \$33.99 |
| 447380   | 5300UE-008-U1000▲ | 1     | 1000' unreel | 79.85   | 75.79   | 65.06   |

### CM Rated Cable

#### 22 AWG stranded (7 x 30) tinned copper with 22 AWG stranded tinned drain wire

- Inner shield: Beldfoil® (Z-fold®) aluminum foil – polyester tape 100% coverage
- Insulation: PP (polypropylene)
- Color: chrome
- Outer jacket: PVC
- UL1685 flame test
- Nominal impedance: 50Ω
- Nominal capacitance: 30pF/ft.
- Max. operating voltage: 300Vrms
- Nominal inductance: 0.18µH/ft.
- Nominal DCR: 15Ω/1000'
- Max. current: 2A per conductor

| Part No. | Product No.    | Pairs | Description | 1        | 5        | 10       |
|----------|----------------|-------|-------------|----------|----------|----------|
| 447726   | 8777-060-500▲  | 3     | 500' reel   | \$286.49 | \$270.00 | \$266.00 |
| 447718   | 8777-060-1000▲ | 3     | 1000' reel  | 555.05   | 540.00   | 521.95   |
| 447734   | 8778-060-500▲  | 6     | 500' reel   | 545.79   | 518.49   | 499.99   |

### Flexible CM Rated Cable

#### 24 AWG stranded (7 x 32) tinned copper with 24 AWG TC drain wire

- Inner shield: Beldfoil® aluminum foil – polyester tape 100% coverage with 24AWG (7 x 32) tinned copper drain wire
- Outer shield: Beldfoil® aluminum foil – polyester tape 100% coverage with 18 AWG (7 x 26) tinned copper drain wire
- Insulation: PO (polyolefin)
- Inner and outer jacket: PVC
- Nominal capacitance: 31pF/ft.
- Max. operating voltage: 300Vrms
- Color: Black
- Nominal inductance: 0.18µH/ft.
- Nominal DCR: 23.3Ω/1000'
- Max. current: 1.05A per conductor

| Part No. | Product No.    | Pairs | Description | 1        | 5        | 10       |
|----------|----------------|-------|-------------|----------|----------|----------|
| 447161   | 1510C-B59-500▲ | 4     | 500' reel   | \$544.49 | \$517.19 | \$491.35 |

### Audio, Control and Instrumentation Cable

#### 22 AWG solid tinned copper with 22 AWG solid TC drain wire

- Insulation & outer jacket: PVC
- Inner shield: Beldfoil® aluminum foil – polyester tape 100% coverage w/ 22AWG solid tinned copper drain wire
- Nominal inductance: 0.19µH/ft.
- Nominal capacitance: 40pF/ft.
- Max. operating voltage: 300Vrms
- Color: Chrome
- Nominal DCR: 16.7Ω/1000'
- Max. current: 1.5A per conductor

| Part No. | Product No.    | Pairs | Description | 1          | 5          | 10         |
|----------|----------------|-------|-------------|------------|------------|------------|
| 447697   | 8764-060-1000▲ | 9     | 1000' reel  | \$2,294.95 | \$2,271.88 | \$2,249.16 |

#### 14 AWG stranded (42 x 30) tinned copper

- Insulation & outer jacket: PVC
- Inner shield: Beldfoil® (Z-fold®) aluminum foil – polyester tape 100% coverage
- Nominal capacitance: 40pF/ft.
- Max. operating voltage: 300Vrms
- Color: Chrome
- Nominal inductance: 0.19µH/ft.
- Nominal DCR: 16.7Ω/1000'
- Max. current: 2A per conductor

| Part No. | Product No.   | Pairs | Description | 1        | 5        | 10       |
|----------|---------------|-------|-------------|----------|----------|----------|
| 447700   | 8768-060-500▲ | 6     | 500' reel   | \$452.89 | \$430.19 | \$408.69 |

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with suggestions for products you'd like  
to see in future catalogs.

Due to extraordinary copper market price fluctuations,  
cable and wire prices are subject to change.**Belden Paired Cable (Continued)****Shielded Audio, Control and Instrumentation Cable****24 AWG stranded (7 x 32) tinned copper  
with 24 AWG tinned copper drain wire**

- UL1685 flame test
- Outer shield: Beldfoil® aluminum foil – polyester tape 100% coverage
- Outer jacket: PVC
- Nominal impedance: 52Ω
- Nominal capacitance: 31pF/ft.
- Max. operating voltage: 300Vrms
- Color: Black
- Insulation: PP (polypropylene)
- Nominal inductance: 0.17μH/ft.
- Nominal DCR: 23.5Ω/1000'
- Max. current: 2A per conductor

| Part No. | Product No.     | Pairs | Description  | 1        | 5        | 10       |
|----------|-----------------|-------|--------------|----------|----------|----------|
| 447339   | 1883A-010-U1000 | 1     | 1000' unreel | \$162.29 | \$153.27 | \$145.59 |

**Audio Alarm and Security Cable****14 AWG stranded (19 x 27) bare copper (unshielded)**

- Suitable applications: intercom/PA systems, sound/audio systems, fire alarms
- Insulation: PVC 0.014" diameter
- UL1666 vertical riser flame test
- Nominal capacitance: 31pF/ft.
- Max. operating voltage: 300Vrms
- Color: gray
- Outer jacket: PVC
- Nominal inductance: 0.15μH/ft.
- Nominal DCR: 2.53Ω/1000'
- Max. current: 8A per conductor

| Part No. | Product No.    | Pairs | Description | 1       | 5       | 10      |
|----------|----------------|-------|-------------|---------|---------|---------|
| 447355   | 5100UE-008-500 | 1     | 500' reel   | \$98.85 | \$93.63 | \$88.95 |

**16 AWG stranded (19 x 29) bare copper (unshielded)**

- Suitable applications: addressable fire systems, data circuits, monitor/detection, control circuits, initiating circuits, notification circuits
- Insulation: PVC 0.010" diameter
- UL1666 vertical riser flame test
- Nominal capacitance: 33pF/ft.
- Max. operating voltage: 300Vrms
- Color: gray
- Outer jacket: PVC
- Nominal inductance: 0.15μH/ft.
- Nominal DCR: 4.2Ω/1000'
- Max. current: 6.25A per conductor

| Part No. | Product No.     | Pairs | Description | 1        | 5        | 10      |
|----------|-----------------|-------|-------------|----------|----------|---------|
| 447363   | 5200UE-008-1000 | 1     | 1000' reel  | \$107.39 | \$101.99 | \$96.89 |
| 447371   | 5200UE-008-500  | 1     | 500' reel   | 53.75    | 50.99    | 43.78   |

**Low Capacitance Cable For EIA RS-232/422 Applications****24 AWG stranded (7 x 32) tinned copper  
with 24 AWG stranded tinned copper drain wire**

- Insulation: Datalene® FPE (foam polyethylene)
- Outer shield: Beldfoil® aluminum foil – polyester tape w/ shorting fold, braid tinned copper 65% coverage
- Outer jacket: PVC
- UL1685 flame test
- Nominal capacitance: 12.5pF/ft.
- Max. operating voltage: 300Vrms
- Color: Chrome
- Nominal impedance: 100Ω
- Nominal DCR: 24Ω/1000'
- Max. current: 1.5A per conductor

| Part No. | Product No.  | Pairs | Description | 1        | 5        | 10       |
|----------|--------------|-------|-------------|----------|----------|----------|
| 447443   | 8107-060-100 | 7     | 100' reel   | \$198.39 | \$179.98 | \$170.99 |

**24 AWG stranded (7 x 32) tinned copper  
with 24 AWG stranded tinned copper drain wire**

- UL1685 flame test
- Insulation: Datalene® FPE (foam polyethylene)
- Outer shield: Beldfoil® aluminum foil – polyester tape w/ shorting fold, braid tinned copper 65% coverage
- Outer jacket: PVC
- Nominal impedance: 100Ω
- Nominal capacitance: 12.5pF/ft.
- Max. operating voltage: 300Vrms
- Color: Chrome
- Nominal DCR: 24Ω/1000'
- Max. current: 1.1A per conductor

| Part No. | Product No.  | Pairs | Description | 1        | 5        | 10       |
|----------|--------------|-------|-------------|----------|----------|----------|
| 447451   | 8110-060-100 | 10    | 100' reel   | \$230.89 | \$209.48 | \$199.99 |

**Composite Data, Audio, Video, Security and Control Cable****Two RG6 18 AWG solid bare copper conductors and  
two 4-pair UTP 24 AWG solid bare copper conductors**

- Gas injected FPR insulation coax cable, polyolefin insulation CAT5e cable and F-R PVC jackets
- Component nominal outer diameter: .200"
- Banana Peel™ jacketless cables
- Color: black

| Part No. | Product No. | Description | 1        | 5        | 10       |
|----------|-------------|-------------|----------|----------|----------|
| 734164   | 7913S-500   | 500' reel   | \$355.39 | \$338.45 | \$322.33 |
| 734163   | 7913S-1000  | 1000' reel  | 700.85   | 682.06   | 663.31   |

**Belden Paired Cable (Continued)****Paired DataTwist® Category 5e UTP Cable****TIA/EIA – 568-B.2, unbonded-pair cable**

- 4 pair unshielded
- Maximum DCR per 100m – 9.38Ω
- Input impedance: 100Ω
- 24 AWG solid

**1585A series:**

- Plenum, FEP Teflon® insulation, Flamarrest® jacket
- Nominal outer dia.: 0.200"

**1583A series:**

- Non-plenum, polyolefin insulation, PVC jacket
- Nominal outer dia.: 0.214"

| Part No. | Product No.     | Color     | Description      | 1       | 5       | 10      |
|----------|-----------------|-----------|------------------|---------|---------|---------|
| 734093   | 1585A-100-877   | Natural   | 100' reel        | \$29.99 | \$28.49 | \$26.99 |
| 734095   | 1585A-500-877   | Natural   | 500' reel        | 129.99  | 121.37  | 115.59  |
| 734094   | 1585A-1000-877  | Natural   | 1000' reel       | 214.45  | 204.23  | 194.50  |
| 734096   | 1585A-U1000-877 | Natural   | 1000' unreel box | 214.45  | 204.23  | 194.50  |
| 734097   | 1585A-U100-D15  | Blue      | 100' unreel box  | 29.99   | 28.49   | 26.99   |
| 734099   | 1585A-U500-D15  | Blue      | 500' unreel box  | 129.99  | 114.99  | 103.86  |
| 734098   | 1585A-U1000-D15 | Blue      | 1000' unreel box | 239.99  | 229.99  | 218.47  |
| 734090   | 1583A-100-06    | Blue      | 100' reel        | 15.15   | 13.61   | 12.25   |
| 734177   | 1583A-500-06    | Blue      | 500' reel        | 71.19   | 64.05   | 57.65   |
| 734091   | 1583A-1000-06   | Blue      | 1000' reel       | 142.35  | 128.11  | 115.30  |
| 734092   | 1583A-U1000-06  | Blue      | 1000' unreel box | 142.35  | 128.11  | 115.30  |
| 447179   | 1583A-U1000-02  | Red       | 1000' unreel box | 142.35  | 128.11  | 115.30  |
| 447187   | 1583A-U1000-03  | Orange    | 1000' unreel box | 142.35  | 128.11  | 115.30  |
| 447195   | 1583A-U1000-04  | Yellow    | 1000' unreel box | 142.35  | 128.11  | 115.30  |
| 447208   | 1583A-U1000-05  | Dk. green | 1000' unreel box | 142.35  | 128.11  | 115.30  |
| 447216   | 1583A-U1000-09  | White     | 1000' unreel box | 142.35  | 128.11  | 115.30  |
| 447224   | 1583A-U1000-10  | Black     | 1000' unreel box | 142.35  | 128.11  | 115.30  |
| 447232   | 1583A-U1000-F6H | Dk. gray  | 1000' unreel box | 142.35  | 128.11  | 115.30  |

**Belden Hook-Up Wire****UL AWM Style 1007**

Belden hook-up and lead wire products are manufactured in a variety of materials, sizes, and designs to meet rigid industry and government specifications. Used in a wealth of applications including inter-connection circuits, internal wiring of computer and data processing equipment, appliances, and automotive. AWM, or Appliance Wiring Material, is Underwriter Laboratories' recognized covering of insulated wires and cables intended for internal wiring of appliances and equipment.

- Rated 105°C, 300V; 600V peak for electronic circuits and electrical equipment
- Tinned copper
- PVC insulated
- Increments of 100' or 1000' reels

Use the color code chart below to replace the "xx" when ordering

|             |           |             |             |                |
|-------------|-----------|-------------|-------------|----------------|
| 02 – Brown  | 03 – Red  | 04 – Orange | 05 – Yellow | 06 – Green     |
| 08 – Violet | 09 – Gray | 10 – White  | 11 – Black  | 14 – Dark blue |

e.g. 734602 – 7346 is the Jameco designation for 28 AWG stranded wire and 02 is for color brown

| Part No. | Product No.  | Description                     | 1       | 5       | 10      |
|----------|--------------|---------------------------------|---------|---------|---------|
| 7346xx   | 9928-100-xx  | 28 AWG (7 x 36) stranded        | \$19.85 | \$16.34 | \$14.99 |
| 7345xx   | 9926-100-xx  | 26 AWG (7 x 34) stranded        | 21.19   | 17.45   | 16.15   |
| 7344xx   | 9923-100-xx  | *24 AWG (7 x 32) stranded       | 21.99   | 18.35   | 16.99   |
| 7343xx   | 9921-100-xx  | 22 AWG (7 x 30) stranded        | 25.75   | 21.18   | 19.63   |
| 7342xx   | 9919-100-xx  | 20 AWG (7 x 28) stranded        | 31.65   | 26.05   | 24.12   |
| 7341xx   | 9918-100-xx  | 18 AWG (16 x 30) stranded       | 35.29   | 29.05   | 26.89   |
| 7340xx   | 9916-100-xx  | 16 AWG (26 x 30) stranded       | 49.99   | 41.95   | 38.82   |
| 447902   | 9923-1000-02 | 24 AWG (7 x 32) stranded red    | 128.85  | 117.86  | 108.35  |
| 447911   | 9923-1000-07 | 24 AWG (7 x 32) stranded violet | 128.85  | 117.86  | 108.35  |

\* Not available in violet, gray or dark blue

Over 99% of Our Catalog Products Are In Stock

Place your order by 6PM EST for same  
business-day shipment.

▲ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.



# Hook-up Wire & Multi-Conductor Cable

Color Code Legend  
New Sale Lower\$ QtySave

Due to extraordinary copper market price fluctuations, cable and wire prices are subject to change.



## Bus Bar Hook-Up Wire

In accordance with performance requirements of Federal Specs. QQ-W343G.

- Solid tinned copper, single conductor
- Nominal outer diameter: 24 AWG – .021"; 22 AWG – .026"; 20 AWG – .033"

| Part No. | Product No. | Description        | 1       | 5       | 10      |
|----------|-------------|--------------------|---------|---------|---------|
| 734169   | 8022-100    | 24 AWG, 100' reel  | \$14.09 | \$13.54 | \$12.90 |
| 734170   | 8022-1000   | 24 AWG, 1000' reel | 73.79   | 70.29   | 66.95   |
| 734167   | 8021-100    | 22 AWG, 100' reel  | 13.45   | 10.81   | 9.77    |
| 734168   | 8021-1000   | 22 AWG, 1000' reel | 95.99   | 91.41   | 87.06   |
| 734165   | 8020-100    | 20 AWG, 100' reel  | 13.29   | 11.67   | 10.55   |
| 734166   | 8020-1000   | 20 AWG, 1000' reel | 141.49  | 120.59  | 115.30  |



## Belden Multi-Conductor Cable

### Audio, Control and Instrumentation Cable

22 AWG stranded (7 x 30) tinned copper (unshielded)

- Insulation and outer jacket: PVC
- Color: Chrome
- Nominal inductance: 0.17µH/ft.
- Nominal capacitance: 34pF/ft.
- Max. operating voltage: 300Vrms
- Nominal DCR: 15.6Ω/1000'
- Max. current: 2.1A per conductor

| Part No. | Product No.    | Conductors | Description  | 1        | 5        | 10       |
|----------|----------------|------------|--------------|----------|----------|----------|
| 447873   | 9430-060-U1000 | 7          | 1000' unreel | \$387.05 | \$351.16 | \$333.59 |

### Computer Cable For EIA RS-232 Applications

24 AWG stranded (7 x 32) tinned copper with 24 AWG stranded TC drain wire

- Insulation and outer jacket: PVC
- Color: Chrome
- Nominal DCR: 25Ω/1000'
- Nominal capacitance: 33pF/ft.
- Outer shield: Beldfoil® aluminum foil-polyester tape 100% coverage
- Max. operating voltage: 300Vrms
- Max. current: 1.75A per conductor

| Part No. | Product No.  | Conductors | Description | 1        | 5        | 10       |
|----------|--------------|------------|-------------|----------|----------|----------|
| 447890   | 9536-060-500 | 6          | 500' unreel | \$179.19 | \$169.99 | \$160.05 |

### Unshielded Audio, Control and Instrumentation Cable

18 AWG stranded (19 x 30) tinned copper

- Insulation & outer jacket: PVC
- Color: Chrome
- Nominal capacitance: 26pF/ft.
- Max. operating voltage: 300Vrms
- Nominal DCR: 6.3Ω/1000'
- Max. current: 4A per conductor

| Part No. | Product No.    | Conductors | Description  | 1        | 5        | 10       |
|----------|----------------|------------|--------------|----------|----------|----------|
| 447566   | 8489-060-U1000 | 4          | 1000' unreel | \$480.19 | \$400.50 | \$385.85 |

### Audio, Control and Instrumentation Cable

18 AWG stranded (19 x 30) tinned copper with 20 AWG stranded TC drain wire

- Insulation: S-R PVC (semi-rigid PVC)
- Outer shield: Beldfoil® (Z-Fold®) aluminum foil-polyester tape 100% coverage
- Color: chrome
- Outer jacket: PVC
- Nominal capacitance: 70pF/ft.
- Max. operating voltage: 300Vrms
- UL1685 FT4 flame test
- Nominal DCR: 6.5Ω/1000'
- Max. current: 5A per conductor

| Part No. | Product No.  | Conductors | Description | 1        | 5        | 10       |
|----------|--------------|------------|-------------|----------|----------|----------|
| 447865   | 9418-060-500 | 4          | 500' reel   | \$257.09 | \$243.51 | \$231.35 |

### New Generation® Commercial Application Cable

18 AWG stranded (7 x 26) bare copper with 20 AWG stranded (7 x 28) TC drain wire

- Insulation: PVC 0.010" diameter
- Color: gray
- Outer jacket: PVC
- UL1666 vertical shaft flame test
- Outer shield: Beldfoil® aluminum foil – polyester tape w/ shorting fold 100% coverage
- Nominal capacitance: 38pF/ft.
- Max. operating voltage: 300Vrms
- Nominal DCR: 7.2Ω/1000'
- Max. current: 4A per conductor

| Part No. | Product No.      | Conductors | Description  | 1        | 5        | 10       |
|----------|------------------|------------|--------------|----------|----------|----------|
| 447401   | 5302FE-008-U1000 | 4          | 1000' unreel | \$176.75 | \$167.89 | \$144.10 |

▲ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product

Ⓡ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)



## Belden Multi-Conductor Cables (Con.)

### Multi-Conductor Audio, Control & Instrumentation Cables Non-Plenum

22 AWG stranded (7 x 30) shielded with 22 AWG stranded TC drain wire

- Polyethylene insulation
- Nominal capacitance: 75pF/m
- Nominal outer diameter: 0.199"
- Color: chrome



| Part No. | Product No.   | Conductors | Description      | 1       | 5       | 10      |
|----------|---------------|------------|------------------|---------|---------|---------|
| 733235   | 8771-100-60   | 3          | 100' reel        | \$29.99 | \$26.68 | \$25.41 |
| 733243   | 8771-500-60   | 3          | 500' reel        | 130.05  | 127.50  | 124.95  |
| 733252   | 8771-1000-60  | 3          | 1000' reel       | 307.49  | 276.72  | 249.05  |
| 734068   | 8771-U500-60  | 3          | 500' unreel box  | 149.99  | 142.31  | 134.39  |
| 734067   | 8771-U1000-60 | 3          | 1000' unreel box | 298.95  | 281.99  | 265.41  |

22 AWG stranded (7 x 30) unshielded

- PVC insulation
- Color: chrome



8443 Series



8444 Series



8445 Series

| Part No. | Product No.   | Conductors | Description      | 1       | 5       | 10      |
|----------|---------------|------------|------------------|---------|---------|---------|
| 732996   | 8442-100-60   | 2          | 100' reel        | \$19.15 | \$17.25 | \$15.35 |
| 733008   | 8442-500-60   | 2          | 500' reel        | 70.85   | 64.42   | 58.56   |
| 733016   | 8442-1000-60  | 2          | 1000' reel       | 139.39  | 133.48  | 123.82  |
| 734055   | 8442-U500-60  | 2          | 500' unreel box  | 70.39   | 66.71   | 62.99   |
| 734054   | 8442-U1000-60 | 2          | 1000' unreel box | 142.29  | 135.52  | 129.07  |
| 733024   | 8443-100-60   | 3          | 100' reel        | 23.95   | 22.75   | 21.62   |
| 733032   | 8443-500-60   | 3          | 500' reel        | 100.25  | 95.46   | 90.92   |
| 734057   | 8443-U500-60  | 3          | 500' unreel box  | 100.25  | 95.47   | 90.92   |
| 733059   | 8444-100-60   | 4          | 100' reel        | 32.59   | 30.13   | 27.65   |
| 733067   | 8444-500-60   | 4          | 500' reel        | 128.19  | 122.07  | 116.26  |
| 733075   | 8444-1000-60  | 4          | 1000' reel       | 256.35  | 244.15  | 232.52  |
| 734059   | 8444-U500-60  | 4          | 500' unreel box  | 142.55  | 129.18  | 116.26  |
| 734058   | 8444-U1000-60 | 4          | 1000' unreel box | 232.65  | 221.55  | 211.00  |
| 733083   | 8445-100-60   | 5          | 100' reel        | 38.09   | 36.31   | 34.58   |
| 733092   | 8445-500-60   | 5          | 500' reel        | 200.25  | 187.90  | 145.46  |
| 733104   | 8445-1000-60  | 5          | 1000' reel       | 359.99  | 321.55  | 315.09  |
| 734061   | 8445-U500-60  | 5          | 500' unreel box  | 190.49  | 173.14  | 158.74  |
| 734060   | 8445-U1000-60 | 5          | 1000' unreel box | 374.65  | 353.75  | 328.19  |

20 AWG stranded (7 x 28) shielded with 20 AWG stranded TC drain wire

- Polyethylene insulation and chrome PVC jacket
- Nominal capacitance: 89pF/m
- Nominal outer diameter: 0.218"
- Color: chrome



| Part No. | Product No.   | Conductors | Description      | 1        | 5        | 10       |
|----------|---------------|------------|------------------|----------|----------|----------|
| 734254   | 8772-U500-60  | 3          | 500' unreel box  | \$169.85 | \$161.77 | \$154.07 |
| 734253   | 8772-U1000-60 | 3          | 1000' unreel box | 306.45   | 280.92   | 259.29   |

18 AWG stranded (16 x 30) shielded with 20 AWG stranded TC drain wire

- Polyethylene insulation
- Nominal capacitance: 79pF/m
- Nominal outer diameter: 0.246"
- Color: chrome



| Part No. | Product No.   | Conductors | Description      | 1       | 5       | 10      |
|----------|---------------|------------|------------------|---------|---------|---------|
| 733201   | 8770-100-60   | 3          | 100' reel        | \$59.99 | \$54.99 | \$49.99 |
| 733219   | 8770-500-60   | 3          | 500' reel        | 210.09  | 201.56  | 191.96  |
| 733227   | 8770-1000-60  | 3          | 1000' reel       | 423.25  | 403.11  | 383.91  |
| 734084   | 8770-U500-60  | 3          | 500' unreel box  | 274.49  | 249.03  | 226.26  |
| 734083   | 8770-U1000-60 | 3          | 1000' unreel box | 497.09  | 457.48  | 422.27  |

## Lowest Price Guarantee

Have you found a product at a lower print-advertised price? We'll beat that price by 10%, right down to our cost!

Due to extraordinary copper market price fluctuations,  
cable and wire prices are subject to change.

## Flat Ribbon Cable

- Designed for general purpose interconnect applications
- Insulation: PVC – polyvinyl chloride
- Insulation resistance: >10,000MΩ
- Dielectric withstanding voltage: 2,000Vrms
- 28AWG stranded (7 x 36) tinned copper
- Current rating: 1A/conductor
- Nom. conductor DC resistance: 68.2Ω/1000ft.
- 0.050" pitch
- Voltage rating: 300Vrms



## Gray

| Part No. | Product No.     | Conductors | 1       | 2       | 5       |
|----------|-----------------|------------|---------|---------|---------|
| 689311   | 9L28010-H100-08 | 10         | \$25.89 | \$25.72 | \$21.65 |
| 689320   | 9L28015-H100-08 | 15         | 40.45   | 36.73   | 30.92   |
| 689338   | 9L28016-H100-08 | 16         | 44.25   | 41.12   | 34.61   |
| 689346   | 9L28020-H100-08 | 20         | 55.89   | 51.69   | 43.52   |
| 689354   | 9L28024-H100-08 | 24         | 69.89   | 63.46   | 53.43   |
| 689362   | 9L28025-H100-08 | 25         | 77.99   | 72.09   | 60.69   |
| 689371   | 9L28026-H100-08 | 26         | 73.35   | 67.78   | 57.07   |
| 689389   | 9L28034-H100-08 | 34         | 96.85   | 89.56   | 75.39   |
| 689397   | 9L28036-H100-08 | 36         | 107.69  | 97.78   | 82.32   |
| 689400   | 9L24037-H100-08 | 37         | 102.29  | 99.29   | 83.59   |
| 689418   | 9L24040-H100-08 | 40         | 104.35  | 101.30  | 85.27   |
| 689426   | 9L24050-H100-08 | 50         | 136.69  | 125.21  | 105.40  |
| 689434   | 9L24060-H100-08 | 60         | 166.45  | 151.12  | 127.21  |
| 689442   | 9L24064-H100-08 | 64         | 177.25  | 160.91  | 135.45  |

## Rainbow (Multi-Color)

| Part No. | Product No.     | Conductors | 1       | 2       | 5       |
|----------|-----------------|------------|---------|---------|---------|
| 689451   | 9R28010-000-100 | 10         | \$69.95 | \$63.14 | \$53.10 |
| 689469   | 9R28014-000-100 | 14         | 98.99   | 89.36   | 75.15   |
| 689477   | 9R28016-000-100 | 16         | 106.59  | 102.91  | 86.55   |
| 689485   | 9R28020-000-100 | 20         | 140.95  | 137.64  | 121.58  |
| 689493   | 9R28024-000-100 | 24         | 168.35  | 151.99  | 127.81  |
| 689506   | 9R28025-000-100 | 25         | 176.69  | 159.53  | 134.15  |
| 689514   | 9R28026-000-100 | 26         | 183.35  | 165.52  | 139.18  |
| 689522   | 9R28034-000-100 | 34         | 237.69  | 214.59  | 180.45  |
| 689531   | 9R28037-000-100 | 37         | 227.95  | 214.49  | 198.06  |
| 689549   | 9R28040-000-100 | 40         | 280.79  | 253.50  | 213.17  |
| 689557   | 9R28050-000-100 | 50         | 330.49  | 319.09  | 268.33  |
| 689565   | 9R28060-000-100 | 60         | 422.55  | 381.52  | 320.82  |
| 689573   | 9R28064-000-100 | 64         | 449.05  | 405.43  | 340.93  |



## Wire &amp; Cable

## 568641: Multi-Conductor Unshielded Communications &amp; Control Cable

- 22 AWG (7 x 30) stranded tinned copper
- UL AWM 2576 type CM
- PVC jacket
- Gray
- 2 conductor



## 568691: Multi-Conductor Foil Shield Communication &amp; Control

- 20 AWG (7 x 28) stranded tinned copper with
- 20 AWG (10 x 30) stranded drain wire tinned copper
- Rating: 300V; 75°C
- 2 conductor
- PE insulation
- PVC jacket (gray)



## 568827: Xtra Guard® I Multi-Conductor, Unshielded Cable

- 24/20/18/16 AWG stranded tinned copper
- UL type CM, AWM 2464
- Rating: 300V; -20°C to 80°C
- PVC jacket



## 568747: 0.050" Centers Flat Ribbon Cable

- Rating: 300V; -20°C to 105°C
- Nominal capacitance: 14pF/ft.
- Nominal impedance: 105Ω
- PVC insulation
- 9 conductors
- Stranded tinned
- UL style 2651
- Gray



| Part No. | Product No.  | Description | 1   | 10 | 100 |
|----------|--------------|-------------|---|----|-----|
| 568641   | 1172C SL005  | 100' reel   | Because of price volatility, get current pricing by entering part number at |    |     |
| 568691   | 2411C SL002  | 500' reel   | www.Jameco.com  |    |     |
| 568827   | 5062C SL005  | 100' reel   | or call 1-800-831-4242  |    |     |
| 568747   | 3580/9 SL005 | 100' reel   |   |    |     |

See Our Alpha Wire & Cable Offering at [www.Jameco.com/Prod/AlphaWire](http://www.Jameco.com/Prod/AlphaWire)

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product

♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

## Hook-Up Wire



## Sold in 100' reels

## 568721: Type B MIL-W-16878E

- Stranded
- Operating temp: -20°C to 105°C
- 600V
- PVC insulation

## 568886: Type EE UL Style 1880 MIL-W-16878E

- Stranded
- Stranded tinned copper
- TFE Teflon insulation
- PVC insulation

## 568659/568667: Type MW MIL-W-76B

- Stranded tinned copper
- PVC insulation

## 568704: Type E MIL-W-16878E

- Solid
- Teflon (PTFE) insulation

## 568712: AWM / Style1015

- Stranded tinned copper
- PVC insulation

## 568923: AWM / Style1430

- Stranded tinned copper
- PVC insulation

| Part No. | Product No.  | Color  | Description       | 1 | 5 | 10 |
|----------|--------------|--------|-------------------|---|---|----|
| 568721   | 3081 GR005   | Green  | 10 AWG (105 x 30) |   |   |    |
| 568886   | 5877 BK005   | Black  | 18 AWG (19 x 30)  |   |   |    |
| 568659   | 1555 GR005   | Green  | 18 AWG (19 x 30)  |   |   |    |
| 568667   | 1560 GR005   | Green  | 12 AWG (65x30)    |   |   |    |
| 568704   | 2855/1 OR001 | Orange | 22 AWG Solid      |   |   |    |
| 568712   | 3079-RD001   | Red    | 14 AWG (41 x 30)  |   |   |    |
| 568923   | 7133-GR001   | Green  | 18 AWG (7 x 26)   |   |   |    |

• Rating: 1000V; 200°C

• Rating: 1000V; 80°C

• Voltage rating: 600Vrms

• Voltage rating: 600Vrms

• Voltage rating: 300Vrms

Because of price volatility, get current pricing by entering part number at [www.Jameco.com](http://www.Jameco.com) or call 1-800-831-4242See Our Alpha Wire & Cable Offering at [www.Jameco.com/Prod/AlphaHookupWire](http://www.Jameco.com/Prod/AlphaHookupWire)

## Shielding Grounding Strap

A tight weave of multi-strand, soft drawn tinned copper wire, this shielding ground strap is an ideal material for short run cables providing easy radial termination.

- Applications: point-to-point ground path, wire/cable shielding
- Nominal ID – 11/64" (4.37mm); braid construction – 36AWG individual ends 168 individual ends; 14 AWG equivalence



| Part No. | Product No. | Length                      | 1        | 10       | 100      |
|----------|-------------|-----------------------------|----------|----------|----------|
| 568675   | 2168-SV003  | 250 ft. tinned copper braid | \$181.95 | \$172.86 | \$164.22 |

## Solid Hook-Up Wire – 22 AWG

- Temp. range: -55°C to +105°C
- Weight: 100' (0.3 lbs.); 1000' (3.8 lbs.)
- MIL-W-16878D type B
- For use with breadboards such as the JE20 series, pg 312



| Part No. | Cross Ref. No. | Color  | 100 ft. | Part No. | Cross Ref. No. | Color  | 1000 ft. |
|----------|----------------|--------|---------|----------|----------------|--------|----------|
| 36768    | 122BE/C        | Blue   | \$5.49  | 36776    | 122BE/K        | Blue   | \$39.99  |
| 36792    | 122BK-R/C      | Black  | 5.49    | 36805    | 122BK/K        | Black  | 39.99    |
| 36822    | 122G-R/C       | Green  | 5.49    | 36840    | 122G/K         | Green  | 39.99    |
| 36856    | 122R/C         | Red    | 5.49    | 36864    | 122R/K         | Red    | 39.99    |
| 36881    | 122W-R/C       | White  | 5.49    | 36899    | 122W/K         | White  | 39.99    |
| 36920    | 122Y/C         | Yellow | 5.49    | 36928    | 122Y/K         | Yellow | 39.99    |



## UL 1430 Stranded Hook-up Wire

- Temperature rating: 105°C
- Average wall thickness: 0.016
- Sold in 100' rolls
- Voltage: 300V
- 18/20 AWG



| Part No. | Gauge | Color  | Strands | Dia. (in.) | Dia. (mm) | 1       | 10      | 25      |
|----------|-------|--------|---------|------------|-----------|---------|---------|---------|
| 307918   | 18    | Black  | 19 x 30 | 0.082      | 2.083     | \$19.95 | \$17.95 | \$16.15 |
| 307926   | 18    | Red    | 19 x 30 | 0.082      | 2.083     | 19.95   | 17.75   | 16.15   |
| 305015   | 18    | Orange | 7 x 26  | 0.082      | 2.083     | 19.95   | 17.95   | 16.15   |
| 304995   | 20    | Yellow | 19 x 32 | 0.071      | 1.803     | 19.95   | 17.95   | 16.15   |
| 305007   | 20    | Gray   | 19 x 32 | 0.071      | 1.803     | 19.95   | 17.95   | 16.15   |
| 304979   | 20    | Blue   | 7 x 28  | 0.070      | 1.778     | 19.95   | 17.95   | 16.15   |
| 304987   | 20    | Gray   | 7 x 28  | 0.070      | 1.778     | 19.95   | 17.95   | 16.15   |
| 307897   | 20    | Black  | 7 x 28  | 0.070      | 1.778     | 19.95   | 17.95   | 16.15   |
| 307900   | 20    | Red    | 7 x 28  | 0.070      | 1.778     | 19.95   | 17.95   | 16.15   |

Due to extraordinary copper market price fluctuations,  
cable and wire prices are subject to change.

Call for OEM pricing

## JAMECO ValuePro UL 1007 Stranded Hook-Up Wire

300 Volts

- 80°C
- PVC insulation
- Temperature range: -40°C to +80°C
- CSA: TR-64
- Sold in 100' rolls



| Part No. | Cross Ref.     | AWG        | Color  | Wt. (lbs.) | 1      | 5      | 10     |
|----------|----------------|------------|--------|------------|--------|--------|--------|
| 126085   | 223SBK/C       | 22 (7x30)  | Black  | 0.4        | \$3.39 | \$3.19 | \$2.99 |
| 126034   | 223SR/C        | 22 (7x30)  | Red    | 0.4        | 3.39   | 3.19   | 2.99   |
| 126077   | 223SR/C        | 22 (7x30)  | White  | 0.4        | 3.39   | 3.19   | 2.99   |
| 310852   | UL1007-22-GR-C | 22 (7x30)  | Green  | 1.0        | 3.39   | 3.19   | 2.99   |
| 310877   | UL1007-22-YL-C | 22 (7x30)  | Yellow | 1.0        | 4.05   | 3.83   | 3.59   |
| 125840   | 203SBK/C       | 20 (10x30) | Black  | 0.6        | 5.95   | 5.70   | 5.39   |
| 125794   | 203SR/C        | 20 (10x30) | Red    | 0.5        | 5.95   | 5.70   | 5.39   |
| 125831   | 203SW/C        | 20 (10x30) | White  | 0.5        | 5.95   | 5.70   | 5.39   |
| 310893   | UL1007-20-GR-C | 20 (10x30) | Green  | 1.0        | 5.95   | 5.70   | 5.39   |
| 310915   | UL1007-20-YL-C | 20 (10x30) | Yellow | 1.0        | 4.95   | 4.75   | 4.49   |
| 310922   | UL1007-20-BL-C | 20 (10x30) | Blue   | 1.0        | 5.95   | 5.70   | 5.39   |
| 125787   | 183SBK/C       | 18 (16x30) | Black  | 0.8        | 5.79   | 5.55   | 5.25   |
| 125735   | 183SR/C        | 18 (16x30) | Red    | 0.8        | 5.79   | 5.55   | 5.25   |
| 125751   | 183SW/C        | 18 (16x30) | White  | 0.8        | 6.95   | 6.66   | 6.30   |
| 310932   | UL1007-18-GR-C | 18 (16x30) | Green  | 1.0        | 5.79   | 5.55   | 5.25   |
| 310949   | UL1007-18-YL-C | 18 (16x30) | Yellow | 1.0        | 6.95   | 6.66   | 6.30   |
| 310958   | UL1007-18-BL-C | 18 (16x30) | Blue   | 1.0        | 6.95   | 6.66   | 6.30   |

## JAMECO ValuePro Twisted Pair Cable – 24 AWG

- PVC insulation
- Use for hook up wire
- Stranded tinned wire (7 x 32)
- Weight: 100' (0.5 lbs.); 1000' (4.7 lbs.)
- Reduced EMI
- 80°C
- 300 V



| Part No. | Cross Ref. No. | Color       | 100 ft. | Part No. | Cross Ref. No. | Color       | 1000 ft. |
|----------|----------------|-------------|---------|----------|----------------|-------------|----------|
| 105911   | 224GW/C        | Green/white | \$5.99  | 105806   | 224GW/K        | Green/white | \$44.99  |
| 173164   | 224BW/C        | Black/white | 5.49    | 173156   | 224RW/K        | Red/white   | 44.99    |
|          |                |             |         | 173172   | 224BW/K        | Black/white | 44.95    |

## JAMECO ValuePro Modular Telephone Cable – 28 AWG

- Color coded conductors
- Flat modular cable
- PVC jacket
- 7 x 43 stranded
- Gray



| Part No. | Cross Ref. No. | Conductors | Length (ft.) | 1      | 25     | 50     |
|----------|----------------|------------|--------------|--------|--------|--------|
| 644666   | 300-840SL-100  | 4          | 100          | \$3.49 | \$3.29 | \$3.09 |
| 644674   | 300-840SL-1000 | 4          | 1000         | 29.99  | 28.49  | 27.05  |
| 644691   | 300-860SL-100  | 6          | 100          | 7.49   | 6.75   | 6.09   |
| 644703   | 300-860SL-1000 | 6          | 1000         | 49.99  | 47.49  | 45.09  |
| 644720   | 300-880SL-100  | 8          | 100          | 9.99   | 9.49   | 8.99   |
| 644738   | 300-880SL-1000 | 8          | 1000         | 61.99  | 58.89  | 55.95  |

## Kynar™ Wire Wrap Wire – 30 AWG

- Assorted color coded insulation
- Color coded Kynar™ (Polyvinidene Fluoride) insulation
- Silver plated copper (solid conductor)
- Temperature: -40°C to +125°C
- Wire wrap tools, pg 293
- See pg 148 for sockets
- Used for prototyping
- UL 1423
- Passes UL VW-1 flame test



22542

| Part No. | Color  | Wt. (lbs.) | 100 ft. | Part No. | Color  | Wt. (lbs.) | 1000 ft. |
|----------|--------|------------|---------|----------|--------|------------|----------|
| 22542    | Blue   | 0.1        | \$4.99  | 22551    | Blue   | 0.6        | \$29.99  |
| 22577    | Black  | 0.1        | 4.99    | 22585    | Black  | 0.6        | 29.99    |
| 22631    | Red    | 0.1        | 4.99    | 22649    | Red    | 0.6        | 29.99    |
| 22665    | White  | 0.1        | 4.99    | 22673    | White  | 0.6        | 29.99    |
| 22606    | Green  | 0.1        | 4.99    | 22614    | Green  | 0.6        | 29.99    |
| 22700    | Yellow | 0.1        | 4.99    | 22702    | Yellow | 0.6        | 29.99    |

## JAMECO ValuePro Category 5e/5 Network Cable

- 4 twisted pairs
- Insulation: polyethylene
- Nom. OD.: 0.189"
- Nom. impedance: 100
- UTP



Solid: uses modular plug P/N 119343, pg 108  
Stranded: uses modular plug P/N 79281, pg 108

- Prepackaged and priced in increments of 25', 100' or 1000'

### 24 AWG UTP Category 5 Enhanced – 350MHz

| Part No. | Cross Ref. No.  | Description | Color  | Length (ft.) | 1      | 25     |
|----------|-----------------|-------------|--------|--------------|--------|--------|
| 644543   | 10X5-701TH-25   | Solid       | Gray   | 25           | \$4.99 | \$4.75 |
| 644551   | 10X5-701TH-100  | Solid       | Gray   | 100          | 16.99  | 16.15  |
| 644560   | 10X5-701TH-1000 | Solid       | Gray   | 1000         | 99.99  | 94.99  |
| 645714   | 10X5-704TH-25   | Solid       | Blue   | 25           | 4.99   | 4.75   |
| 645722   | 10X5-704TH-100  | Solid       | Blue   | 100          | 16.99  | 16.15  |
| 645731   | 10X5-704TH-1000 | Solid       | Blue   | 1000         | 99.99  | 94.99  |
| 644578   | 10X5-801TH-25   | Stranded    | Gray   | 25           | 5.99   | 5.69   |
| 644586   | 10X5-801TH-100  | Stranded    | Gray   | 100          | 17.99  | 16.19  |
| 644594   | 10X5-801TH-1000 | Stranded    | Gray   | 1000         | 159.99 | 143.99 |
| 644607   | 10X5-804TH-25   | Stranded    | Blue   | 25           | 5.99   | 5.69   |
| 644615   | 10X5-804TH-100  | Stranded    | Blue   | 100          | 17.99  | 16.19  |
| 644623   | 10X5-804TH-1000 | Stranded    | Blue   | 1000         | 159.99 | 151.99 |
| 645749   | 10X5-805TH-25   | Stranded    | Red    | 25           | 5.99   | 5.69   |
| 645757   | 10X5-805TH-100  | Stranded    | Red    | 100          | 17.99  | 16.19  |
| 645765   | 10X5-805TH-1000 | Stranded    | Red    | 1000         | 159.99 | 143.99 |
| 645773   | 10X5-802TH-25   | Stranded    | Black  | 25           | 5.99   | 5.69   |
| 645781   | 10X5-802TH-100  | Stranded    | black  | 100          | 17.99  | 16.19  |
| 645790   | 10X5-802TH-1000 | Stranded    | Black  | 1000         | 159.99 | 143.99 |
| 645802   | 10X5-806TH-25   | Stranded    | Yellow | 25           | 5.99   | 5.69   |
| 645811   | 10X5-806TH-100  | Stranded    | Yellow | 100          | 17.99  | 16.19  |
| 645829   | 10X5-806TH-1000 | Stranded    | Yellow | 1000         | 159.99 | 143.99 |

### 24 AWG UTP Category 5 – 100MHz

• 7/32 AWG

| Part No. | Cross Ref. No.    | Description | Color | Length (ft.) | 1      | 25     |
|----------|-------------------|-------------|-------|--------------|--------|--------|
| 644631   | GTP501-4P-GR-25   | Stranded    | Gray  | 25           | \$5.95 | \$5.65 |
| 644640   | GTP501-4P-GR-100  | Stranded    | Gray  | 100          | 19.35  | 18.39  |
| 644658   | GTP501-4P-GR-1000 | Stranded    | Gray  | 1000         | 164.49 | 156.25 |

## JAMECO ValuePro RG Type Bulk Coaxial Cable

RG58/U & RG58A/U (50Ω): Nom. cap.: 27pF/ft.; center resist.: 10.4Ω/1000ft. @ 77°F

- For ethernet, oscilloscopes
- RG59/U (75Ω): Nominal capacitance: 19pF/ft.; center resist.: 16.5Ω/1000ft. @ 77°F

- For CATV & video patch cords
- RG174/U (50Ω): Nominal capacitance: 30.8pF/ft.; center resist.: 97Ω/1000ft. @ 77°F

- For ethernet, oscilloscopes



| Part No. | Cross Ref. No.  | Type    | Description     | Length | 1       | 25      | 50      |
|----------|-----------------|---------|-----------------|--------|---------|---------|---------|
| 644754   | RG58/U-100      | RG58/U  | 20 AWG solid    | 100'   | \$11.99 | \$11.39 | \$10.79 |
| 644762   | RG58/U-1000     | RG58/U  | 20 AWG solid    | 1000'  | 108.49  | 103.05  | 97.89   |
| 644771   | 10X1-041TH-100  | RG58A/U | 20 AWG stranded | 100'   | 18.99   | 17.99   | 17.09   |
| 644789   | 10X1-041TH-1000 | RG58A/U | 20 AWG stranded | 1000'  | 149.99  | 142.49  | 135.35  |
| 644797   | RG59/U-100      | RG59/U  | 22 AWG solid    | 100'   | 12.99   | 12.35   | 11.75   |
| 644800   | RG59/U-1000     | RG59/U  | 22 AWG solid    | 1000'  | 109.99  | 104.49  | 99.25   |
| 644818   | RG174/U-100     | RG174/U | 26 AWG stranded | 100'   | 18.99   | 17.99   | 17.09   |
| 644826   | RG174/U-1000    | RG174/U | 26 AWG stranded | 1000'  | 168.99  | 160.55  | 152.49  |

## JAMECO ValuePro 2-Conductor Power/Speaker Cable – 24 AWG

- Black wire with white polarity stripe
- Temperature rating: 20°C to 60°C
- Stranded copper wire (7 x 32)
- Operating voltage: 300V



| Part No. | Cross Ref. No. | Length | Wt. (lbs.) | 1      | 10     | 25     |
|----------|----------------|--------|------------|--------|--------|--------|
| 100280   | 224BK/C        | 100'   | 0.8        | \$5.59 | \$4.99 | \$4.49 |
| 100299   | 224BK/K        | 1000'  | 7.8        | 44.99  | 40.49  | 36.45  |



Call for OEM pricing

JAMECO ValuePro

## Gray Flat Ribbon Cable – 28 AWG

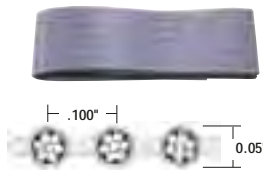
- Single edge red stripe for pin 1 orientation
- Insulation: polyvinyl chloride (PVC)
- Center spacing: 0.05"
- Temp. rating: -20°C to +80°C
- 28 AWG (7 x 36)
- Voltage rating: 300V
- Stranded copper wire
- Prepackaged and priced in increments listed below



| Part No. | Cross Ref. No. | Conductors | Length          | 1      | 25     | 50     |
|----------|----------------|------------|-----------------|--------|--------|--------|
| 643794   | 171-10-10R     | 10         | 10' .....       | \$1.49 | \$1.39 | \$1.29 |
| 643807   | 171-10-25R     | 10         | 25' .....       | 4.35   | 3.94   | 3.54   |
| 643815   | 171-10-100R    | 10         | 100' reel ..... | 12.65  | 12.09  | 11.54  |
| 643831   | 171-16-10R     | 16         | 10' .....       | 2.19   | 2.09   | 1.99   |
| 643840   | 171-16-25R     | 16         | 25' .....       | 6.39   | 5.74   | 5.17   |
| 643858   | 171-16-100R    | 16         | 100' reel ..... | 19.99  | 19.47  | 18.99  |
| 643874   | 171-20-10R     | 20         | 10' .....       | 3.99   | 3.79   | 3.59   |
| 643882   | 171-20-25R     | 20         | 25' .....       | 7.85   | 7.04   | 6.34   |
| 643891   | 171-20-100R    | 20         | 100' reel ..... | 29.25  | 26.31  | 23.68  |
| 643911   | 171-25-10R     | 25         | 10' .....       | 3.89   | 3.79   | 3.69   |
| 643920   | 171-25-25R     | 25         | 25' .....       | 8.75   | 8.29   | 7.85   |
| 643938   | 171-25-100R    | 25         | 100' reel ..... | 29.35  | 27.94  | 26.61  |
| 643962   | 171-26-10R     | 26         | 10' .....       | 3.49   | 3.29   | 3.09   |
| 643971   | 171-26-25R     | 26         | 25' .....       | 10.15  | 9.01   | 8.11   |
| 643989   | 171-26-100R    | 26         | 100' reel ..... | 28.65  | 27.22  | 25.86  |
| 644033   | 171-34-10R     | 34         | 10' .....       | 4.25   | 3.99   | 3.79   |
| 644041   | 171-34-25      | 34         | 25' .....       | 12.15  | 10.95  | 9.85   |
| 644050   | 171-34-100R    | 34         | 100' reel ..... | 36.29  | 34.46  | 32.74  |
| 644076   | 171-37-10R     | 37         | 10' .....       | 5.89   | 5.59   | 5.29   |
| 644084   | 171-37-25R     | 37         | 25' .....       | 11.75  | 11.15  | 10.59  |
| 644092   | 171-37-100R    | 37         | 100' reel ..... | 43.99  | 41.99  | 39.99  |
| 644113   | 171-40-10R     | 40         | 10' .....       | 7.39   | 6.99   | 6.65   |
| 644121   | 171-40-25R     | 40         | 25' .....       | 17.49  | 16.59  | 15.75  |
| 644130   | 171-40-100R    | 40         | 100' reel ..... | 47.99  | 45.59  | 43.29  |
| 644156   | 171-50-10R     | 50         | 10' .....       | 6.75   | 6.39   | 6.05   |
| 644164   | 171-50-25R     | 50         | 25' .....       | 14.49  | 13.75  | 13.05  |
| 644172   | 171-50-100R    | 50         | 100' reel ..... | 55.45  | 52.65  | 50.02  |
| 644199   | 171-60-10R     | 60         | 10' .....       | 8.95   | 8.49   | 8.05   |
| 644201   | 171-60-25R     | 60         | 25' .....       | 19.75  | 18.75  | 17.79  |
| 644210   | 171-60-100R    | 60         | 100' reel ..... | 69.25  | 64.84  | 61.58  |

## .100" (2.54mm) Flat Ribbon Cable

- 10-conductor 24 AWG stranded
- Insulation material: 7mm polyvinyl chloride (PVC) gray
- Rated temp.: 105°C
- Rated voltage: 300V
- Dielectric strength: 2kV in 1 min.
- Insulation resistance: 100MΩ
- Capacitance: 31pF/m
- Inductance: 1.45μH/m



| Part No. | Cross Ref.   | Length          | 1      | 10     | 25     |
|----------|--------------|-----------------|--------|--------|--------|
| 363813   | H24G-10-10G  | 10' .....       | \$8.99 | \$8.49 | \$7.99 |
| 363821   | H24G-10-25G  | 25' .....       | 19.99  | 18.99  | 17.99  |
| 363856   | H24G-10-100G | 100' .....      | 69.99  | 64.99  | 59.99  |
| 363864   | H24G-10-250G | 250' reel ..... | 199.99 | 174.99 | 149.99 |

## Committed to You

We're committed to providing you with  
the best service in the industry.JAMECO  
ValueProMulticonductor Shielded Computer  
Communication Cable – 24 AWG

- Stranded copper wire, multi-colored insulation
- Insulated with polyvinyl chloride (PVC)
- Voltage rating: 300V
- 24 AWG (7 x 32 AWG)
- Shielded 100% w/ aluminum mylar
- Color: gray
- Drain wire



• Prepackaged and priced in increments listed below

| Part No. | Cross Ref. No. | Conductors | Diameter | Length      | 1      | 25     |
|----------|----------------|------------|----------|-------------|--------|--------|
| 644383   | SC4-25R        | 4          | 0.20"    | 25' .....   | \$4.75 | \$4.49 |
| 644391   | SC4-100R       | 4          | 0.20"    | 100' .....  | 16.99  | 16.15  |
| 644404   | SC4-1000R      | 4          | 0.20"    | 1000' ..... | 139.99 | 132.99 |
| 644412   | SC9-25R        | 9          | 0.23"    | 25' .....   | 11.25  | 10.69  |
| 644421   | SC9-100R       | 9          | 0.23"    | 100' .....  | 34.99  | 33.25  |
| 644439   | SC9-1000R      | 9          | 0.23"    | 1000' ..... | 269.99 | 256.49 |
| 644447   | SC15-25R       | 15         | 0.28"    | 25' .....   | 14.75  | 13.99  |
| 644455   | SC15-100R      | 15         | 0.28"    | 100' .....  | 48.99  | 46.55  |
| 644463   | SC15-1000R     | 15         | 0.28"    | 1000' ..... | 429.99 | 408.49 |
| 644471   | SC25-25R       | 25         | 0.37"    | 25' .....   | 22.25  | 21.15  |
| 644480   | SC25-100R      | 25         | 0.37"    | 100' .....  | 70.99  | 67.45  |
| 644498   | SC25-500R      | 25         | 0.37"    | 500' .....  | 589.99 | 560.49 |

JAMECO  
ValuePro

## Multicolor Flat Ribbon Cable – 28 AWG

- Standard 10-color repeat sequence
- 28 AWG (7 x 36)
- Stranded copper wire
- Center spacing: 0.05"
- Voltage rating: 300V
- Temperature rating: -20°C to +80°C



• Prepackaged and priced in increments listed below

| Part No. | Cross Ref. No. | Conductors | Length          | 1      | 25     | 50     |
|----------|----------------|------------|-----------------|--------|--------|--------|
| 639672   | 28RC10-10R     | 10         | 10' .....       | \$3.19 | \$2.79 | \$2.47 |
| 643508   | 28RC10-25R     | 10         | 25' .....       | 8.39   | 7.55   | 6.80   |
| 643516   | 28RC10-100R    | 10         | 100' reel ..... | 26.99  | 25.99  | 23.99  |
| 643532   | 28RC16-10R     | 16         | 10' .....       | 3.85   | 3.80   | 3.75   |
| 643541   | 28RC16-25R     | 16         | 25' .....       | 13.45  | 12.08  | 10.88  |
| 643559   | 28RC16-100R    | 16         | 100' reel ..... | 52.19  | 46.95  | 42.26  |
| 643575   | 28RC20-10R     | 20         | 10' .....       | 6.79   | 6.39   | 5.99   |
| 643583   | 28RC20-25R     | 20         | 25' .....       | 16.79  | 15.11  | 13.60  |
| 643591   | 28RC20-100R    | 20         | 100' reel ..... | 65.25  | 58.70  | 52.83  |
| 643612   | 28RC25-10R     | 25         | 10' .....       | 6.99   | 6.65   | 6.29   |
| 643621   | 28RC25-25R     | 25         | 25' .....       | 16.79  | 15.95  | 15.17  |
| 643639   | 28RC25-100R    | 25         | 100' reel ..... | 59.99  | 56.99  | 54.15  |
| 643655   | 28RC34-10R     | 34         | 10' .....       | 8.39   | 7.97   | 7.94   |
| 643663   | 28RC34-25R     | 34         | 25' .....       | 17.99  | 16.99  | 16.15  |
| 643671   | 28RC34-100R    | 34         | 100' reel ..... | 89.55  | 85.08  | 80.82  |
| 643698   | 28RC40-10R     | 40         | 10' .....       | 12.75  | 11.47  | 10.32  |
| 643701   | 28RC40-25R     | 40         | 25' .....       | 33.59  | 30.22  | 27.20  |
| 643719   | 28RC40-100R    | 40         | 100' reel ..... | 105.99 | 101.99 | 98.99  |
| 643735   | 28RC50-10R     | 50         | 10' .....       | 14.55  | 13.12  | 11.81  |
| 643743   | 28RC50-25R     | 50         | 25' .....       | 41.95  | 37.75  | 33.98  |
| 643751   | 28RC50-100R    | 50         | 100' reel ..... | 163.15 | 146.75 | 132.11 |

## Disk Drive &amp; SCSI Cables

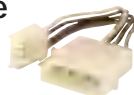


• Blue Part No. = Limited Quantity Available

| Part No. | Description   | Length | 1      | 10     | 100    |
|----------|---|--------|--------|--------|--------|
| 32918    | 34-pin header socket ribbon cable for floppy to card  | 23"    | \$3.49 | \$2.97 | \$2.22 |
| 355637   | 40-pin IDE hard drive cable to card                   | 11.5"  | .89    | .86    | .83    |
| 185076   | 40-pin IDE hard drive cable to card                   | 14"    | .95    | .71    | .53    |
| 32686    | 40-pin IDE hard drive cable to card                   | 18"    | .95    | .90    | .85    |
| 72805    | Two 40-pin header socket ribbon cable for IDE drive   | 18"    | 3.69   | 3.14   | 2.59   |
| 175492   | 40-pin header socket ribbon cable for ultra DMA66/100 | 17"    | 6.95   | 6.25   | 5.49   |
| 32715    | 50-pin header socket ribbon cable SCSI-I (18")        | 18"    | 3.95   | 3.49   | 2.95   |

## 3.5" Disk Drive Power Adapter Cable

- IBM PC/XT and higher compatibles
- Allows connection of standard 3.5" disk drives to power supplies



| Part No. | Length | AWG | 1      | 10     | 100    |
|----------|--------|-----|--------|--------|--------|
| 28396    | 3.5'   | 22  | \$2.49 | \$2.25 | \$1.95 |

## 3.5" & 5.25" Disk Drive Power Splitters

- IBM PC/XT and higher compatibles
- Splits 4-line Molex male into 2 females



| Part No. | Drive | AWG | Length | 1      | 10     | 100    |
|----------|-------|-----|--------|--------|--------|--------|
| 28354    | 5.25" | 18  | 5'     | \$2.95 | \$2.69 | \$2.39 |
| 277528   | 5.25" | 20  | 6'     | 2.85   | 2.59   | 2.25   |
| 72304    | 3.5"  | 22  | 5'     | 2.75   | 2.49   | 2.19   |

## AT/ATX Power Supply Extension Cable

- For use with ATX power supplies
- 20-pin ATX male and female connectors
- Color coded to ATX power supply



| Part No. | Length | AWG | 1      | 10     | 100    |
|----------|--------|-----|--------|--------|--------|
| 170238   | 15'    | 18  | \$5.95 | \$5.65 | \$5.35 |

## Ribbon Cable Assemblies

- Metal connector
- 300V rating
- 105°C rating
- 28 AWG flat cable
- Tin-plated contacts



| Part No. | Description | 1      | 10     | 100    |
|----------|-------------|--------|--------|--------|
| 12407    | 4' DB25 M-F | \$4.49 | \$3.95 | \$3.59 |
| 208582   | 6' DB9 M-F  | 3.95   | 3.55   | 3.19   |

## PC/XT/AT & PS/2 Keyboard Extension Cables

- Color: beige
- 114981/112045:
- 5-pin DIN male-to-female
- 111053:
- 6-pin mini DIN female-to-male

**Quantity SAVE**



| Part No. | Description             | 1      | 10     | 100    |
|----------|-------------------------|--------|--------|--------|
| 114981   | PC/XT/AT 6' non-coiled  | \$1.99 | \$1.69 | \$1.27 |
| 112045   | PC/XT/AT 10' non-coiled | 3.95   | 3.36   | 2.52   |
| 28549    | PS/2 6' non-coiled      | 4.35   | 3.89   | 3.49   |
| 111053   | PS/2 10' non-coiled     | 5.49   | 4.99   | 4.39   |

## Macintosh® Printer Cables

| Part No. | Description    | 1      | 10     | 50     |
|----------|----------------|--------|--------|--------|
| 10604    | 6' mini DIN8M  | \$3.29 | \$3.15 | \$2.99 |
| 130025   | 10' mini DIN8M | 5.99   | 5.39   | 4.85   |

## IEEE 1284 Parallel/ Serial High Speed Cables

Compatible with bidirectional communication data flow resulting in speeds up to 10 times faster than conventional applications.



- Double shielded with 28 AWG stranded twisted pair inner conductors
- Weight: 0.6 lbs.
- Molded shells, PVC plastic
- Color: beige (P/N 130067/319767); black (P/N 161630); gray (P/N 223845)

| Part No. | Description                  | 1       | 10      |
|----------|------------------------------|---------|---------|
| 130067   | 6' DB25 M-Cent. parallel 36M | \$11.95 | \$10.95 |
| 319767   | 6' DB25 M-Cent. parallel 36M | 4.95    | 4.69    |
| 161630   | 10' DB25 M-M serial cable    | 14.95   | 13.49   |

## IEEE 488 Cables

A variety of cable lengths are offered to ensure that IEEE system requirements are met (20 meters maximum length with a maximum of 15 devices). These cables are standard IEEE 488 with stackable 24-pin GPIB connectors on both ends.



| Part No. | Description | Wt. (lbs.) | 1       | 10      | 25      |
|----------|-------------|------------|---------|---------|---------|
| 73155    | 1 meter     | 0.8        | \$36.49 | \$32.79 | \$29.49 |
| 115781   | 2 meter     | 1.2        | 37.95   | 34.19   | 30.95   |
| 115802   | 4 meter     | 2.0        | 38.95   | 36.19   | 31.95   |

## Serial Null Modem Cables

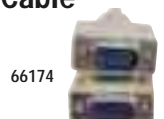
- Molded type connectors
- Color: gray
- 181403/180697 Pin outs: 1 & 6-4, 2-3, 3-2, 4-6 & 1, 5-5, 7-8, 8-7
- 181438 Pin outs: 2-2; 3-3; 5 & 6-4; 7-5; 8-7; 20-6 & 8 (Serial printer null modem)
- 180582 Pin outs: 2-2; 3-3; 4-5 & 6; 5-7; 6 & 8-20; 7-8; (Serial printer null modem)
- 180742 Pin outs: 1-4 & 5; 2-2; 3-3; 4-6; 5-7; 6-20; 7-8; 8-8



| Part No. | Description         | Wt. (lbs.) | 1      | 10     | 50     |
|----------|---------------------|------------|--------|--------|--------|
| 181403   | 6' DB9 F to DB9 F   | 0.3        | \$5.69 | \$5.09 | \$4.59 |
| 180697   | 10' DB9 F to DB9 F  | 0.4        | 6.79   | 6.09   | 5.49   |
| 181438   | 6' DB25 M to DB9 F  | 0.4        | 4.95   | 4.49   | 3.95   |
| 180582   | 10' DB25 M to DB9 F | 0.4        | 6.69   | 6.05   | 5.45   |
| 180742   | 10' DB25 F to DB9 F | 0.5        | 7.39   | 6.65   | 5.99   |

## VGA Monitor Cable

- Connects video card to VGA monitor
- IBM PC/XT and higher compatibles
- HDB15 male to male



| Part No. | Description       | 1      | 10     | 100    |
|----------|-------------------|--------|--------|--------|
| 66174    | 6' monitor cable  | \$6.49 | \$5.89 | \$5.29 |
| 148523   | 10' monitor cable | 6.95   | 6.25   | 5.59   |

## 9-Pin Monitor Cable

- For monochrome, RGB, EGA and multisync monitors
- Connects video card to monitor
- IBM PC/XT and higher compatibles



| Part No. | Description | 1      | 10     | 100    |
|----------|-------------|--------|--------|--------|
| 66157    | 6' DB9 M-M  | \$4.45 | \$3.95 | \$3.55 |

## VGA Monitor Extension Cables

- Extends VGA monitor cable; HDB15 male-to-female
- IBM PC/XT and higher compatibles
- 134041:
- HDB15 female w/ hex nuts and HDB15 male w/ thumbscrews
- 66165/148531:
- Thumbscrews on each end



| Part No. | Description        | 1      | 10     | 100    |
|----------|--------------------|--------|--------|--------|
| 134041   | 6' screws/hex nuts | \$4.49 | \$3.95 | \$3.49 |
| 66165    | 6' thumbscrews     | 6.59   | 5.95   | 5.35   |
| 148531   | 10' thumbscrews    | 7.49   | 6.79   | 5.99   |

## DA15 Extension Cables

- Molded connectors
- Straight through
- Thumbscrews
- Color: gray



| Part No. | Description | Length | 1      | 10     | 100    |
|----------|-------------|--------|--------|--------|--------|
| 181286   | DA15 M-M    | 6'     | \$5.49 | \$4.95 | \$4.45 |
| 181358   | DA15 M-F    | 6'     | 5.49   | 4.95   | 4.45   |

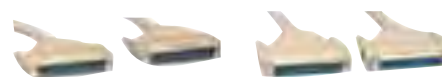
## DB25-to-Centronics Parallel Printer Cables

- Molded and fully shielded DB25 male and 36-pin Centronics male connectors
- IBM PC/XT and higher compatibles
- Blue Part No. = Limited Quantity Available



| Part No. | Description  | Wt. (lbs.) | 1      | 10     | 100    |
|----------|--------------|------------|--------|--------|--------|
| 28716    | 6' straight  | 0.4        | \$3.95 | \$3.56 | \$3.20 |
| 123781   | 10' straight | 0.6        | 5.95   | 5.09   | 3.98   |
| 28708    | 15' straight | 0.8        | 5.95   | 5.09   | 3.79   |
| 101899   | 25' straight | 1.1        | 5.95   | 5.06   | 3.79   |

## 37-Pin Straight Through Cable Adapters



- Molded connectors
- Color: gray
- Weight: 0.9 lbs.
- Blue Part No. = Limited Quantity Available

| Part No. | Description | 1      | 10     | 100    |
|----------|-------------|--------|--------|--------|
| 180611   | 6' DC37 M-M | \$6.95 | \$6.29 | \$5.65 |
| 181294   | 6' DC37 M-F | 5.95   | 5.49   | 4.95   |

## RGB Video Cables

- 75Ω coaxial cable; 6' or 10'
- Pin 1 red, pin 2 green, pin 3 blue, pin 14 white/black vertical, pin 13 gray horizontal
- 5 BNCs to HDB15-pin male
- Weight: 0.9 lbs.



| Part No. | Description       | 1       | 10      | 25      |
|----------|-------------------|---------|---------|---------|
| 73648    | 6' cable (black)  | \$19.95 | \$16.99 | \$12.75 |
| 118068   | 10' cable (black) | 23.35   | 19.85   | 14.89   |

## Free Technical Support

Our knowledgeable Tech Support department is ready to answer your questions. 1-800-831-4242

## Monitor/Mouse/Keyboard Cable

- 32'
- HDDB15 male/female for monitor, 5-pin DIN male/female for keyboard, and DB9 male/female for mouse



| Part No. | Description | Wt. (lbs.) | 1       | 10      |
|----------|-------------|------------|---------|---------|
| 141276   | 32' cable   | 4.8        | \$39.95 | \$35.95 |

## Switch Box Adapter Cables

## 6-pin mini DIN

- 177261: Male to male non-coiled cable for P/N 79177 switch box, pg 263
- 174772: Male to male
- 174908/205655: Male to male non-coiled



- 112627: Male to male non-coiled cable for P/N 79177 switch box, pg 263



Blue Part No. = Limited Quantity Available

| Part No. | Length | Color | 1      | 10     | 50     |
|----------|--------|-------|--------|--------|--------|
| 177261   | 2'     | Gray  | \$2.95 | \$2.55 | \$1.89 |
| 174772   | 6'     | Black | 4.95   | 4.25   | 3.19   |
| 174908   | 6'     | Gray  | 5.75   | 5.15   | 4.65   |
| 112627   | 10'    | Beige | 7.95   | 7.25   | 6.49   |
| 205655   | 25'    | Beige | 8.95   | 7.95   | 6.95   |

## DB9 Extension Cables



- All lines connected straight through
- 132345/196365: DB9 female to DB9 female cable with thumbscrews
- 199638/25701/148515: DB9 male to DB9 female cable with thumbscrews
- 181665: DB9 male to DB9 male cable

Blue Part No. = Limited Quantity Available

| Part No. | Description  | 1      | 10     | 100    | 1000   |
|----------|--------------|--------|--------|--------|--------|
| 132345   | 6' F-F       | \$4.95 | \$4.49 | \$3.95 | \$3.49 |
| 199638   | 6' M-F (blk) | 4.49   | 3.95   | 3.49   | 2.95   |
| 25701    | 6' M-F       | 4.95   | 4.49   | 3.95   | 3.49   |
| 196365   | 10' F-F      | 6.95   | 6.25   | 5.59   | 4.95   |
| 148515   | 10' M-F      | 7.49   | 6.79   | 5.99   | 4.95   |
| 181665   | 10' M-M      | 6.95   | 6.25   | 5.59   | 4.95   |

## 9-Pin Test Cable

- DB9 M to DB9 F (6')
- Pin outs: 1-3, 2-2, 4-5

Quantity SAVE



| Part No. | Description            | 1      | 10     | 100    |
|----------|------------------------|--------|--------|--------|
| 162915   | DB9 male to DB9 female | \$2.95 | \$2.51 | \$1.88 |

## Digital Camera USB 2.0 Cables

- Color: black
- Length: 6 ft.
- For use w/ digital cameras, memory card readers, etc.



| Part No. | Product No.         | 1      | 10     |
|----------|---------------------|--------|--------|
| 673715   | USB-A to mini 4-pin | \$2.99 | \$2.65 |
| 673694   | USB-A to mini 5-pin | 2.75   | 2.35   |

## USB 1.1 Cable

## USB-A Male to USB-B Male



| Part No. | Description | 1      | 10     | 25     |
|----------|-------------|--------|--------|--------|
| 169359   | 6' cable    | \$1.79 | \$1.59 | \$1.35 |

## DB9-to-DB25 AT-Adapter Serial Cables

- For DB9 serial ports which need to be converted to DB25 serial
- AT and compatibles
- Molded DB9 female to DB25 male connectors



| Part No. | Description       | 1      | 10     | 100    |
|----------|-------------------|--------|--------|--------|
| 109583   | 1' serial, beige  | \$4.35 | \$3.95 | \$3.49 |
| 189333   | 3' serial, beige  | 3.95   | 3.39   | 2.55   |
| 207790   | 4' serial, beige  | \$2.35 | 1.55   | 1.40   |
| 31721    | 6' serial, beige  | 3.89   | 3.55   | 3.15   |
| 191361   | 6' serial, gray   | 4.39   | 3.99   | 3.15   |
| 155521   | 10' serial, beige | 3.95   | 3.55   | 3.15   |

## DB25 Extension Cables

- Use to lengthen your standard serial cable or for switch box applications
- All lines connected straight through
- Thumbscrews to secure connectors
- Color: gray; except P/Ns 174001/175291: black\*



Blue Part No. = Limited Quantity Available

| Part No. | Description | Wt. (lbs.) | 1      | 10     | 50     | 100    |
|----------|-------------|------------|--------|--------|--------|--------|
| 174001   | 3' M-M      | 0.6        | \$4.79 | \$4.35 | \$3.89 | \$3.49 |
| 401138   | 3' M-M      | 0.4        | 4.45   | 4.25   | 3.99   | 3.79   |
| 65787    | 6' M-M      | 0.5        | 6.49   | 5.89   | 5.29   | 4.89   |
| 39538    | 10' M-M     | 0.7        | 6.95   | 6.29   | 5.05   | 3.69   |
| 179979   | 15' M-M     | 1.2        | 6.95   | 6.26   | 5.63   | 5.07   |
| 67070    | 25' M-M     | 1.4        | 10.95  | 9.95   | 8.95   | 7.95   |
| 180435   | 50' M-M     | 3.6        | 14.95  | 13.49  | 11.95  | 9.95   |
| 164291   | 3' M-F      | 0.4        | 4.29   | 3.89   | 3.49   | 2.95   |
| 175291   | 3' M-F      | 0.4        | 2.95   | 2.69   | 2.25   | 1.59   |
| 163133   | 5' M-F      | 0.6        | 5.29   | 4.75   | 4.29   | 3.85   |
| 67256    | 6' M-F      | 0.6        | 6.45   | 5.79   | 5.25   | 4.69   |
| 39511    | 10' M-F     | 0.7        | 6.95   | 6.26   | 5.63   | 4.61   |
| 177279   | 15' M-F     | 1.0        | 9.49   | 8.55   | 7.69   | 6.25   |
| 101995   | 25' M-F     | 1.4        | 11.95  | 10.79  | 9.69   | 7.95   |
| 181201   | 50' M-F     | 3.2        | 17.95  | 15.11  | 11.33  | 8.50   |
| 224267   | 6' F-F      | 0.7        | 4.95   | 3.95   | 2.95   | 2.09   |

## IEEE 1394 Firewire Cables



- 175821
- 175839
- 175847
- Connect your computer to the latest high speed Firewire peripherals.
- IEEE-1394 compliant
- UL approved
- Molded connectors

## 4-pin Male to 4-pin Male

| Part No. | Description    | 1      | 10     | 25     |
|----------|----------------|--------|--------|--------|
| 175821   | 6' cable black | \$5.59 | \$5.05 | \$4.55 |

## 4-pin Male to 6-pin Male

| Part No. | Description     | 1      | 10     | 25     |
|----------|-----------------|--------|--------|--------|
| 175839   | 6' cable black  | \$5.59 | \$5.05 | \$4.55 |
| 222228   | 10' cable black | 6.99   | 6.25   | 5.65   |

## 6-pin Male to 6-pin Male

| Part No. | Description     | 1      | 10     | 25     |
|----------|-----------------|--------|--------|--------|
| 222615   | 3' cable black  | \$4.99 | \$4.45 | \$3.95 |
| 175847   | 6' cable black  | 5.59   | 5.05   | 4.55   |
| 222201   | 10' cable black | 6.99   | 6.25   | 5.65   |
| 222210   | 15' cable black | 8.59   | 7.75   | 6.95   |

## USB 2.0 Cables



- Higher transfer rate up to 480Mbps
- Backward compatible w/ USB 1.1 products

Blue Part No. = Limited Quantity Available

## USB-A Male to USB-A Male

| Part No. | Description     | 1      | 10     | 25     |
|----------|-----------------|--------|--------|--------|
| 326473   | 3' cable beige  | \$1.55 | \$1.39 | \$1.29 |
| 229682   | 6' cable beige  | 1.65   | 1.49   | 1.39   |
| 222033   | 6' cable black  | 1.65   | 1.49   | 1.39   |
| 229690   | 10' cable beige | 1.89   | 1.75   | 1.65   |
| 229702   | 15' cable beige | 2.85   | 2.59   | 2.49   |
| 222050   | 15' cable black | 2.85   | 2.59   | 2.49   |
| 229577   | 15' cable clear | 2.85   | 2.59   | 2.49   |

## USB-A Male to USB-B Male

| Part No. | Description     | 1      | 10     | 25     |
|----------|-----------------|--------|--------|--------|
| 229711   | 3' cable beige  | \$1.55 | \$1.39 | \$1.29 |
| 222607   | 3' cable black  | 1.55   | 1.39   | 1.29   |
| 229585   | 3' cable clear  | 1.55   | 1.39   | 1.29   |
| 229730   | 6' cable beige  | 1.65   | 1.49   | 1.39   |
| 222010   | 6' cable black  | 1.65   | 1.49   | 1.39   |
| 229594   | 6' cable clear  | 1.65   | 1.49   | 1.39   |
| 229737   | 10' cable beige | 1.89   | 1.75   | 1.65   |
| 222018   | 10' cable black | 1.89   | 1.75   | 1.65   |
| 229606   | 10' cable clear | 1.89   | 1.75   | 1.65   |
| 229761   | 15' cable beige | 2.85   | 2.59   | 2.49   |
| 222025   | 15' cable black | 2.85   | 2.59   | 2.49   |
| 229614   | 15' cable clear | 2.85   | 2.59   | 2.49   |

## USB-A Male to USB-A Female

| Part No. | Description     | 1      | 10     | 25     |
|----------|-----------------|--------|--------|--------|
| 326482   | 3' cable beige  | \$1.55 | \$1.39 | \$1.29 |
| 229771   | 6' cable beige  | 1.65   | 1.49   | 1.39   |
| 222068   | 6' cable black  | 1.65   | 1.49   | 1.39   |
| 229622   | 6' cable clear  | 1.65   | 1.49   | 1.39   |
| 229788   | 10' cable beige | 1.89   | 1.75   | 1.65   |
| 222076   | 10' cable black | 1.89   | 1.75   | 1.65   |
| 229631   | 10' cable clear | 1.95   | 1.79   | 1.71   |
| 229796   | 15' cable beige | 2.85   | 2.59   | 2.49   |
| 222084   | 15' cable black | 2.85   | 2.59   | 2.49   |
| 229649   | 15' cable clear | 2.85   | 2.59   | 2.49   |

## Flexible USB Cable

FlexUSB™ is a compact, lightweight accessory that bends, rotates, and flexes to your desired angle. It provides a means to position USB devices, allowing you to use it with any computer, even in the most cramped environment. Its unique ratcheting design makes it possible to position your USB devices that are compatible with both Windows® and MAC platforms.



| Part No. | Description              | 1       | 5       |
|----------|--------------------------|---------|---------|
| 262158   | USB-A male to USB-B male | \$11.95 | \$10.85 |

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Please send your requests to  
**NewProducts@Jameco.com**



## USB-A Cables with Bracket

- Supports data transfer rates of 12Mbps
- Allows connection of two devices
- Dual USB-A female connectors • 8" long



| Part No. | Description        | 1      | 10     | 25     |
|----------|--------------------|--------|--------|--------|
| 144813   | Female panel mount | \$3.95 | \$3.75 | \$3.55 |
| 319652   | Male panel mount   | 3.95   | 3.75   | 3.55   |

## ATEN USB-to-Centronics Printer Cable **SALE**

- Full compliance with the USB spec V.1.0
- USB-A male to 36-pin male centronics connector
- Supports true bidirectional communication
- Applicable to standard and bidirectional printers



| Part No. | Description  | 1       | 10      | 25      |
|----------|--------------|---------|---------|---------|
| 155352   | 6' USB cable | \$23.75 | \$22.56 | \$21.43 |

## USB-to-DB9 Serial Adapter

- USB-A to DB9 male • Length: 13"
- Supports automatic handshake mode
- Over 230kbps data transfer rate
- 96 byte buffer each for upstream and downstream data flow
- Works with cellphones, PDA, digital cameras, modems and ISDN terminal adapters



| Part No. | Description  | 1       | 10      |
|----------|--------------|---------|---------|
| 387954   | USB-A to DB9 | \$17.95 | \$16.15 |

## JAMECO ValuePro USB Keyboard Adapter

### USB to PS/2

- USB-A female to 6-pin mini DIN male (PS/2)



| Part No. | Description   | 1      | 10     | 25     |
|----------|---------------|--------|--------|--------|
| 316832   | USB-A to PS/2 | \$1.79 | \$1.59 | \$1.39 |

## CAT 5e/6 Crossover Cables

- Connect 2 PCs without a hub
- 24AWG (7 x 43) stranded
- Strain relief RJ45 connectors
- 4-pair • 8P8C • UTP



| Part No. | Description   | 1      | 10     | 100    |
|----------|---------------|--------|--------|--------|
| 679762   | 3' cable RJ45 | \$7.95 | \$7.15 | \$6.29 |
| 681096   | 7' cable RJ45 | 9.95   | 8.95   | 7.69   |

### CAT 5e

| Part No. | Description            | 1      | 10     | 100    |
|----------|------------------------|--------|--------|--------|
| 681109   | 3' cable RJ45          | \$2.95 | \$2.65 | \$2.39 |
| 681117   | 7' cable RJ45          | 4.75   | 4.45   | 3.75   |
| 302041   | 6' cable RJ45          | 3.75   | 3.39   | 3.05   |
| 685812   | 7' cable RJ45 (yellow) | 4.75   | 4.45   | 3.75   |
| 169261   | 10' cable RJ45         | 6.95   | 6.25   | 5.59   |

## USB Gender Adapters

321251: USB-A male to USB-A male

- Dimensions: 1.9"L x 0.6"W

316806: USB-A female to USB-A female

- Dimensions: 1.5"L x 0.7"W



| Part No. | Description  | 1      | 10     | 25     |
|----------|--------------|--------|--------|--------|
| 321251   | USB-A male   | \$2.79 | \$2.65 | \$2.39 |
| 316806   | USB-A female | 2.69   | 2.49   | 2.25   |

## Category 6 Network Cables

- With RJ45 plugs and molded strain reliefs
- Assembled using ETL verified 24AWG stranded cable
- Gold over nickel contacts
- Exceeds performance levels as specified in TIA/EIA 568B.2-1 Category 6 draft 8



| Part No. | Length | Color  | 1      | 10     | 50     |
|----------|--------|--------|--------|--------|--------|
| 219707   | 3 ft.  | Gray   | \$2.79 | \$2.69 | \$2.56 |
| 219715   | 7 ft.  | Gray   | 3.99   | 3.87   | 3.68   |
| 219723   | 14 ft. | Gray   | 6.59   | 6.37   | 6.05   |
| 219731   | 25 ft. | Gray   | 9.39   | 8.92   | 8.47   |
| 219740   | 50 ft. | Gray   | 14.29  | 13.58  | 12.90  |
| 219854   | 3 ft.  | Blue   | 2.79   | 2.69   | 2.56   |
| 219862   | 7 ft.  | Blue   | 3.99   | 3.87   | 3.68   |
| 219871   | 14 ft. | Blue   | 6.59   | 6.37   | 6.05   |
| 219889   | 25 ft. | Blue   | 9.39   | 8.92   | 8.47   |
| 219897   | 50 ft. | Blue   | 14.29  | 13.58  | 12.90  |
| 220003   | 3 ft.  | White  | 2.79   | 2.69   | 2.56   |
| 220011   | 7 ft.  | White  | 3.99   | 3.87   | 3.68   |
| 220046   | 50 ft. | White  | 14.29  | 13.58  | 12.90  |
| 219900   | 3 ft.  | Red    | 2.79   | 2.69   | 2.56   |
| 219918   | 7 ft.  | Red    | 3.99   | 3.87   | 3.68   |
| 219926   | 14 ft. | Red    | 6.59   | 6.37   | 6.05   |
| 219934   | 25 ft. | Red    | 9.39   | 8.92   | 8.47   |
| 219942   | 50 ft. | Red    | 14.29  | 13.58  | 12.90  |
| 219803   | 3 ft.  | Green  | 2.79   | 2.69   | 2.56   |
| 219811   | 7 ft.  | Green  | 3.99   | 3.87   | 3.68   |
| 219820   | 14 ft. | Green  | 6.59   | 6.37   | 6.05   |
| 219838   | 25 ft. | Green  | 9.39   | 8.92   | 8.47   |
| 219846   | 50 ft. | Green  | 14.29  | 13.58  | 12.90  |
| 219758   | 3 ft.  | Black  | 2.79   | 2.69   | 2.56   |
| 219766   | 7 ft.  | Black  | 3.99   | 3.87   | 3.68   |
| 219774   | 14 ft. | Black  | 6.59   | 6.37   | 6.05   |
| 219782   | 25 ft. | Black  | 9.39   | 8.92   | 8.47   |
| 219791   | 50 ft. | Black  | 14.29  | 13.58  | 12.90  |
| 219969   | 7 ft.  | Yellow | 3.99   | 3.87   | 3.68   |
| 219993   | 50 ft. | Yellow | 14.29  | 13.58  | 12.90  |

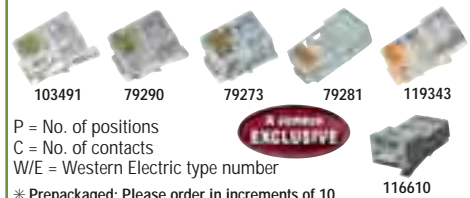
## Category 5e Network Cables

- UTP • 350 MHz
- 8P8C • 4 pair
- 24 AWG (7 x 43) stranded
- "Snagless" boot
- Color coded for easy wire tracing
- High-flexibility
- Achieve optimum system performance



| Part No. | Length | Color  | 1      | 10     | 100    |
|----------|--------|--------|--------|--------|--------|
| 168292   | 3 ft.  | Gray   | \$1.79 | \$1.49 | \$1.39 |
| 168305   | 7 ft.  | Gray   | 2.99   | 2.59   | 2.39   |
| 168313   | 15 ft. | Gray   | 5.29   | 4.39   | 3.99   |
| 168321   | 25 ft. | Gray   | 7.99   | 6.79   | 6.39   |
| 201777   | 3 ft.  | Red    | 1.79   | 1.49   | 1.39   |
| 201785   | 7 ft.  | Red    | 2.99   | 2.59   | 2.39   |
| 201793   | 15 ft. | Red    | 6.95   | 5.95   | 4.45   |
| 201806   | 25 ft. | Red    | 7.99   | 6.79   | 6.39   |
| 201697   | 3 ft.  | Black  | 1.79   | 1.49   | 1.39   |
| 201700   | 7 ft.  | Black  | 2.99   | 2.59   | 2.39   |
| 201718   | 15 ft. | Black  | 5.29   | 4.39   | 3.99   |
| 201726   | 25 ft. | Black  | 7.99   | 6.79   | 6.39   |
| 201734   | 3 ft.  | Blue   | 1.79   | 1.49   | 1.39   |
| 201742   | 7 ft.  | Blue   | 2.99   | 2.59   | 2.39   |
| 201751   | 15 ft. | Blue   | 5.29   | 4.39   | 3.99   |
| 201769   | 25 ft. | Blue   | 7.99   | 6.79   | 6.39   |
| 201814   | 3 ft.  | Yellow | 1.79   | 1.49   | 1.39   |
| 201822   | 7 ft.  | Yellow | 2.99   | 2.59   | 2.39   |
| 201831   | 15 ft. | Yellow | 5.29   | 4.39   | 3.39   |
| 201849   | 25 ft. | Yellow | 7.99   | 6.79   | 6.39   |

## Modular Plugs



P = No. of positions  
C = No. of contacts  
W/E = Western Electric type number

\* Prepackaged: Please order in increments of 10

| Part No. | Description                                  | W/E | 1    | 10     | 100    | 1000   |
|----------|--|-----|------|--------|--------|--------|
| 103491   | 4P4C (handset)                               | 616 | *    | \$1.11 | \$0.99 | \$0.89 |
| 79290    | 6P4C (RJ11)                                  | 623 | *    | .12    | .11    | .095   |
| 79273    | 6P6C (RJ11)                                  | 623 | .25  | .22    | .195   | .18    |
| 79281    | 8P8C (RJ45) (for stranded wire)              | 641 | .35  | .28    | .24    | .20    |
| 119343   | 8P8C (RJ45) unshielded (for solid wire)      | —   | .49  | .44    | .35    | .28    |
| 116610   | 8P8C (RJ45) shielded                         | —   | 1.09 | .99    | .89    | .79    |
| 204231   | 8P8C (RJ45) shielded (for STP stranded wire) | —   | 1.41 | 1.36   | 1.08   | .81    |
| 116601   | 8P8C (RJ45) shielded (for solid wire)        | —   | .99  | .89    | .80    | .72    |
| 180646   | 10P10C (for stranded wire)                   | —   | 1.39 | 1.15   | .82    | .69    |

\* Blue Part No. = Limited Quantity Available

## Modular Jacks



- Voltage rating: 150VAC max.
- PC mount
- Contact current rating: 1.5A max. @ 25°C
- Durability: 750 mating cycles

\* W/E = Western Electric type number  
\* Blue Part No. = Limited Quantity Available

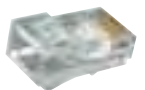
| Part No. | Description                                   | W/E | 1      | 10     | 100    |
|----------|---|-----|--------|--------|--------|
| 115128   | 4P4C (handset) 0.395"W                        | —   | \$3.37 | \$3.34 | \$3.31 |
| 151765   | 6P4C (RJ11) side flange                       | AMP | .45    | .43    | .39    |
| 204206   | 6P4C (RJ11) lead wires                        | —   | .94    | .85    | .64    |
| 115837   | 6P6C (RJ11) side flange                       | —   | .74    | .67    | .59    |
| 204178   | 6P6C (RJ11) dual                              | —   | 1.49   | 1.35   | 1.19   |
| 124039   | 6P6C (RJ11) 6' leads                          | —   | 1.25   | 1.15   | .99    |
| 115844   | 8P8C (RJ45)                                   | 641 | .48    | .44    | .40    |
| 204214   | 8P8C (RJ45) 0.81"L                            | —   | 1.22   | 1.11   | .84    |
| 203449   | 8P8C (RJ45) shielded Pin spacing "A" = 0.055" | —   | 1.19   | .99    | .85    |

## Other Manufacturers — Great Deals

|         |                         |   |        |        |        |        |
|---------|-------------------------|---|--------|--------|--------|--------|
| 1537416 | 8P8C (RJ45) Low Profile | — | \$1.75 | \$1.58 | \$1.42 | \$1.25 |
|---------|-------------------------|---|--------|--------|--------|--------|

## "EZ" RJ45 Connector

Strip the wire and insert into the plug & pull out the wire on the other side. This ensures correct conductor order and uniformity in crimping. No wire bar and no wasted cable.



- For solid or stranded wire
- 8P8C plug
- Use standard modular crimping tool

| Part No. | Product No. | 1      | 10     | 100    | 250    |
|----------|-------------|--------|--------|--------|--------|
| 158115   | RJ45 (8P8C) | \$1.75 | \$1.58 | \$1.42 | \$1.25 |

## AMP 8P8C In-Line Coupler, Modular Jacks & Plugs

### In-Line Coupler

- Housing: black polyphenylene oxide
- Panel mount thickness: 0.062" nominal
- Terminals: 0.018" diameter phosphor bronze with 50µ" gold over nickel



| Part No. | Product No. | 1      | 10     | 100    |
|----------|-------------|--------|--------|--------|
| 524445   | 555052-1    | \$3.45 | \$2.99 | \$2.77 |

### Single Port Modular Jacks



- Meets or exceeds FCC part 68 rules and regulations
- Current rating: 1.5A max. @ 25°C (derated)
- Voltage rating: 150VAC max.
- Housing: polyester 94V-0 rated
- Dielectric withstanding voltage: 1000VACrms
- Contact: 0.014" thick phosphor bronze with 50µ" gold in contact area and 150µ" tin-lead on solder tails over nickel

### Shielded

| Part No. | Product No. | Position                | 1      | 25     | 50     |
|----------|-------------|-------------------------|--------|--------|--------|
| 524453   | 555153-1    | Side entry, low profile | \$1.33 | \$1.26 | \$1.20 |
| 524509   | 557969-1    | Top entry               | .95    | .91    | .83    |
| 524517   | 558342-1    | Right angle             | 1.75   | 1.52   | 1.51   |

### Unshielded

| Part No. | Product No. | Position   | 1        | 25     | 50     |
|----------|-------------|------------|----------|--------|--------|
| 524488   | 555416-1    | Top entry  | \$.56    | \$.548 | \$.534 |
| 524461   | 555164-1    | Side entry | 12.6mm H | .55    | .522   |
|          |             |            |          | .497   |        |

### Unshielded Modular Plugs

- One piece construction with pre-loaded contacts
- Housing: polycarbonate UL94V-0 rated
- Current rating: 15A @ 150VAC
- Terminals: 0.014" thick phosphor bronze under-plated with 100µ" nickel, plated with 50µ" gold in contact region and gold flash on terminal
- Dielectric withstanding voltage: 1000VAC
- Insulation resistance: 5000MΩ
- Meets FCC rules and regulations part 68 and TIA/EIA 568A



| Part No. | Product No. | Description        | 1     | 25     | 50     |
|----------|-------------|--------------------|-------|--------|--------|
| 524496   | 5-557315-3  | Round solid        | \$.50 | \$.438 | \$.395 |
| 524402   | 5-554169-2  | Round stranded     | .46   | .423   | .391   |
| 524411   | 5-554720-3  | Flat oval solid    | .50   | .475   | .428   |
| 524429   | 5-554739-3  | Flat oval strd.    | .46   | .423   | .399   |
| 524541   | 5-569278-4  | Stranded           | .73   | .71    | .64    |
| 524525   | 5-558530-3  | Stranded           | .68   | .66    | .60    |
| 524533   | 5-558530-4  | Solid              | .69   | .66    | .60    |
| 524550   | 5-569532-3  | Stranded long body | 1.65  | 1.49   | 1.35   |

† Load Bar

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 322.

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

| Color Code Legend        |
|--------------------------|
| New Sale Lower\$ QtySave |

## Keystone-Type Wall Plates

• Size: 2.8"W x 4.5"H

Quantity SAVE

| Part No. | No. of ports | Color | 1      | 10    | 100   |
|----------|--------------|-------|--------|-------|-------|
| 212978   | 1            | White | \$1.05 | \$.89 | \$.67 |
| 212994   | 2            | White | 1.25   | 1.15  | .86   |
| 212986   | 3            | White | 1.25   | 1.15  | .99   |
| 212960   | 4            | White | 1.25   | 1.15  | .99   |
| 195565   | 3            | Ivory | 1.25   | 1.05  | .79   |
| 195573   | 4            | Ivory | 1.25   | 1.05  | .79   |

## Keystone RJ-45 & RJ-11 Jacks

### Modular Punchdown Type

- Removable jacks used in wall plates (shown above)
- CAT 5e classification
- Punchdown type wiring connections with color coding
- Size: 0.57"W x 0.63"H x 1.23"D

RJ45: 8P8C RJ11: 6P6C

### RJ45

| Part No. | Color  | 1      | 10     | 100    |
|----------|--------|--------|--------|--------|
| 195590   | Red    | \$4.15 | \$3.53 | \$2.65 |
| 195602   | Yellow | 3.59   | 3.39   | 3.19   |
| 195611   | Green  | 2.09   | 1.24   | 1.15   |
| 195630   | Black  | 3.75   | 3.55   | 3.19   |
| 195637   | Ivory  | 3.55   | 3.24   | 2.43   |
| 212951   | Blue   | 3.75   | 3.19   | 2.39   |
| 212943   | White  | 3.75   | 3.55   | 3.19   |

### RJ11

| Part No. | Color | 1      | 10     | 100    |
|----------|-------|--------|--------|--------|
| 213524   | Black | \$3.75 | \$3.55 | \$2.66 |
| 213516   | White | 3.75   | 3.55   | 3.19   |

♣ Blue Part No. = Limited Quantity Available



## Network Connectors



### CAT5e Coupler

| Part No. | Fig. | Prod. No. | Description | 1      | 10     | 100    |
|----------|------|-----------|-------------|--------|--------|--------|
| 615048   | 1    | 45-5439   | RJ45 female | \$5.39 | \$5.05 | \$4.79 |

### Quick Lo Q Jack

| Part No. | Fig. | Prod. No. | Description  | 1      | 10     | 100    |
|----------|------|-----------|--------------|--------|--------|--------|
| 615056   | 2    | 45-5529   | CAT6 white   | \$4.15 | \$3.89 | \$3.49 |
| 615064   | 2    | 45-5537   | CAT3/4 ivory | 4.15   | 3.89   | 2.97   |
| 615072   | 2    | 45-5533   | CAT5 red     | 4.69   | 4.55   | 4.49   |

### 90° 110 Punchdown Style

| Part No. | Fig. | Prod. No. | Description   | 1      | 10     | 100    |
|----------|------|-----------|---------------|--------|--------|--------|
| 615081   | 3    | 45-5561   | CAT5e, orange | \$4.15 | \$3.89 | \$2.97 |
| 615099   | 3    | 45-5569   | CAT5e, white  | 4.05   | 3.72   | 3.57   |

### 180° IDC Toolless Design

| Part No. | Fig. | Prod. No. | Description   | 1      | 10     | 100    |
|----------|------|-----------|---------------|--------|--------|--------|
| 615101   | 4    | 45-5576   | CAT5e, yellow | \$3.15 | \$2.95 | \$2.79 |
| 615144   | 4    | 45-5837   | CAT5e, ivory  | 2.79   | 2.67   | 2.54   |

### Single Modular Jack Boxes

| Part No. | Fig. | Prod. No. | Description  | 1      | 10     | 100    |
|----------|------|-----------|--------------|--------|--------|--------|
| 615110   | 5    | 45-5812   | CAT5e, white | \$6.85 | \$6.26 | \$6.01 |
| 615128   | 5    | 45-5614   | CAT5e, ivory | 7.09   | 6.48   | 6.23   |



## RJ45-Plug Color Caps (Boots)

- Round strain relief
- 10 piece minimum

204410

| Part No. | Color | 10    | 100   | 500   | 1000  |
|----------|-------|-------|-------|-------|-------|
| 204410   | Black | \$.14 | \$.13 | \$.12 | \$.09 |
| 204353   | Gray  | .154  | .143  | .132  | .099  |
| 204362   | Blue  | .14   | .12   | .098  | .073  |



## Modular Couplers and Adapters



Fig. 1  
W: 1.5"  
H: 0.9"  
D: 0.7"

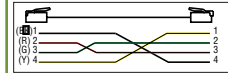


Fig. 2  
W: 1.1"  
H: 0.8"

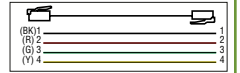


Fig. 3  
W: 1.7"  
H: 1.0"  
D: 0.9"

Style 1 Reverse wiring for telephone systems



Style 2 Straight wiring for networking/printer sharing



| Part No. | Description  | Fig. | 1      | 10    | 100   |
|----------|--|------|--------|-------|-------|
| 72207    | 6P4C male "T" adapter, Style 2. Provides 2 jacks from 1 line. Male modular plug (6P4C), 2 female modular receptacles (6P4C) RJ11 | 2    | \$1.09 | \$.93 | \$.70 |
| 71757    | 6P6C modular coupler, Style 1, RJ11  | 1    | .95    | .86   | .79   |
| 135087   | 6P6C modular coupler, Style 2, RJ11  | 1    | 1.09   | .93   | .70   |
| 181091   | 6P6C male "T" adapter, Style 2. Provides 2 jacks from 1 line. Male modular plug (6P6C), 2 female modular receptacles (6P6C) RJ11 | 2    | .99    | .89   | .78   |
| 118501   | 8P8C modular coupler, Style 1, RJ45  | 1    | 1.85   | 1.75  | 1.55  |
| 135079   | 8P8C modular coupler, Style 2, RJ45  | 1    | 1.39   | 1.25  | 1.15  |
| 153023   | 8P8C modular coupler, Style 2 (for Cat. 5) RJ45  | 3    | 7.99   | 7.35  | 6.24  |
|          |  |      |        | 4.69  |       |

## Modular Jack Boxes & Wall Plates



Fig. 1 W: 2.8" H: 4.5" Fig. 2 W: 2.8" H: 4.5" Fig. 3 W: 2.8" H: 4.7" Fig. 4 W: 2.0" H: 2.2" D: 0.9" Fig. 5 W: 1.5" H: 2.4" D: 1.1" Fig. 6 W: 2.4" H: 2.4" D: 1.1"

| Part No. | Description  | Fig. | 1      | 10     | 100    |
|----------|--|------|--------|--------|--------|
| 72311    | 6P6C & 8P8C double wall jack plate w/ jacks (beige)  | 1    | \$1.95 | \$1.75 | \$1.31 |
| 319839   | 8P8C triple wall jack plate w/ jacks (white) (CAT 6) | 2    | 11.19  | 10.65  | 7.99   |
| 319821   | 8P8C quad wall jack plate w/ jacks (white) (CAT 5e)  | 3    | 11.75  | 11.15  | 8.36   |
| 103464   | 6P4C adhesive jack RJ11 (beige)                      | 4    | 1.39   | 1.19   | 1.09   |
| 71984    | 6P6C adhesive jack RJ11 (beige)                      | 4    | 1.39   | 1.19   | .99    |
| 71651    | 8P8C adhesive jack RJ45 (beige)                      | 4    | 1.95   | 1.65   | 1.45   |
| 213031   | 8P8C adhesive jack RJ45 (single, white) (CAT 5e)     | 5    | 3.29   | 2.99   | 2.69   |
| 213049   | 8P8C adhesive jack RJ45 (dual, white) (CAT 5e)       | 6    | 4.55   | 3.87   | 2.90   |

## Banjo In-Line Modular Adapters

### 4/6/8 Pin 3-In-1

Adapter can be applied to any brand of butt sets, LAN cable testers, or tone generators.



| Part No. | Prod. No. | Description              | Price   |
|----------|-----------|--------------------------|---------|
| 673723   | MT-8091   | In-line modular adapters | \$24.39 |

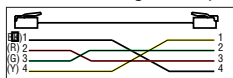
## Modular Telephone/Printer Sharing Cables (Gray)

- RJ11 – 6P2C/6P4C for telephone or network
- RJ11 – 6P6C for telephone or printer sharing
- RJ45 – 8P8C for telephone or modem-dial-up use

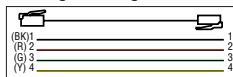


Low Cost Data/Phone Cables

**Style 1** – Reverse wiring for telephone systems



**Style 2** – Straight wiring for networking/printer sharing



**Quantity SAVE**

| Part No. | Conn. Style | Type      | Length | Pricing |        |        |
|----------|-------------|-----------|--------|---------|--------|--------|
|          |             |           |        | 1       | 10     | 100    |
| 189940   | 1           | RJ11-6P2C | 7ft.   | \$ .99  | \$ .85 | \$ .65 |
| 196227   | 1           | RJ11-6P4C | 7ft.   | 1.49    | 1.15   | .86    |
| 115553   | 2           | RJ11-6P4C | 7ft.   | 1.25    | 1.09   | .89    |
| 355645   | 2           | RJ11-6P4C | 14ft.  | 2.19    | 1.59   | 1.38   |
| 115545   | 1           | RJ11-6P4C | 25ft.  | 2.29    | 2.09   | 1.85   |
| 201232   | 2           | RJ11-6P4C | 35ft.  | 2.49    | 2.25   | 1.69   |
| 115588   | 1           | RJ11-6P6C | 7ft.   | 1.55    | 1.35   | 1.15   |
| 115617   | 2           | RJ11-6P6C | 7ft.   | 2.19    | 1.99   | 1.79   |
| 355653   | 2           | RJ11-6P6C | 14ft.  | 2.75    | 2.34   | 1.75   |
| 115676   | 2           | RJ45-8P8C | 7ft.   | 1.89    | 1.61   | 1.20   |

† Beige

⊕ Blue Part No. = Limited Quantity Available

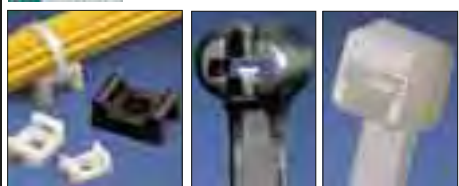
## RJ11 Retractable Cable

This RJ11 cable extends up to 8'. And when you pack up, give it a tug and it retracts into its lightweight, rugged case like a windowshade. It's completely tangleproof.



| Part No. | Description            | Price  |
|----------|------------------------|--------|
| 233349   | RJ11 retractable cable | \$2.95 |

## Cable Ties

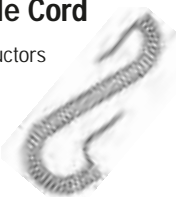


- Pan Ty Cable Ties • Barb Ty Cable Ties
- Cable Tie Mounts • Cable Tie Label

See Our Panduit Cable Ties Offering at [www.Jameco.com/Prod/PanduitTies](http://www.Jameco.com/Prod/PanduitTies)

## Retractable Cord

- Length: 24', 12'
- 18 AWG (42 x 34)
- Bare copper, rubber insulated, cabled with fillers
- Black neoprene jacket
- Voltage Rating: 300V
- UL listed and CSA certified



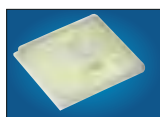
| Part No. | Product No. | 1       | 10      | 100     |
|----------|-------------|---------|---------|---------|
| 481895   | 9482        | \$37.85 | \$29.63 | \$27.25 |

⚠ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

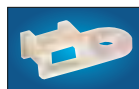
## Cable Tie Mounts and Cable Clamps

- Tie mount and screw tab cable clamps
- Sold in increments of 10

- Material: UL approved nylon 66, 94V-2



182942/171214  
71407/71395/71386



70595



182300/173761



182376



182334/182343



173729/173737  
134754/173753

**Quantity SAVE**

| Part No. | Cross Ref. No. | Description  | 10     | 100     | 1000    |
|----------|----------------|--|--------|---------|---------|
| 182942   | 0505HC-101S    | 4-way cable tie mount, self adhesive, .75"D                          | \$ .07 | \$ .055 | \$ .042 |
| 171214   | HC-100         | 4-way cable tie mount, self adhesive, use w/ 0.1"W max., 0.5" square | .15    | .13     | .094    |
| 71407    | HC-101         | 4-way cable tie mount, self adhesive, use w/ 0.1"W max., 0.9" square | .18    | .16     | .13     |
| 71395    | HC-102         | 4-way cable tie mount, self adhesive, use w/ 0.2"W max., 1.1" square | .23    | .19     | .14     |
| 71386    | HC-103         | 4-way cable tie mount, self adhesive, use w/ 0.4"W max., 1.1" square | .25    | .19     | .13     |
| 70595    | HC-0           | 4-way cable tie, screw type, use w/ 0.2"W max., 0.8"L x 0.4"W        | .15    | .09     | .05     |
| 182301   | 0510HC-2       | Cable tie mount, 1/4" screw hole, 0.5"D                              | .17    | .15     | .14     |
| 173761   | HC-1           | Cable tie, saddle type, 0.6"L x 0.4"W                                | .15    | .091    | .068    |
| 182376   | 0519ATC-22     | 2-way adjustable tie mount, #6 flat head screw, 0.9"D                | .29    | .261    | .222    |
| 182334   | 0520FC-1       | Cable tie mount, self adhesive, 0.1"D                                | .17    | .15     | .113    |
| 182343   | 0520FC-2       | Cable tie mount, self adhesive, 0.2"D                                | .15    | .135    | .122    |
| 173729   | UC0.5          | Cable clamp for 3/16" cable  | .06    | .032    | .02     |
| 173737   | UC1            | Cable clamp for 1/4" cable   | .14    | .09     | .063    |
| 134754   | B0375          | Cable clamp for 3/8" cable   | .088   | .032    | .02     |

## Nylon Cable ID Ties and Tabs



71062



135175

71062: Clear ID tab (0.98" x 0.31")

135175: Nylon cable tie ID marker

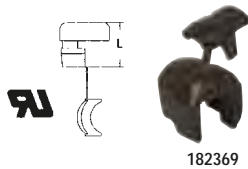
- Sold in increments of 10

| Part No. | Size                  | 10      | 100    | 1000    |
|----------|-----------------------|---------|--------|---------|
| 71062    | 4.0"L x 0.1"W         | \$ .085 | \$ .08 | \$ .072 |
| 135175   | 2.0"L x 0.8"W x .02"T | .22     | .11    | .08     |

## Round-Type Strain Relief Bushings

- Material: UL approved nylon 66, 94V-2
- Color: black
- Used extensively for protecting cords and to prolong cord life

- Sold in increments of 10



182369

| Part No. | Cable Type     | Lgth (in.) | 10     | 100     | 1000    |
|----------|----------------|------------|--------|---------|---------|
| 182351   | SVI/SVT        | .43        | \$ .05 | \$ .043 | \$ .032 |
| 182369   | SJ/SJT; 16 AWG | .58        | .18    | .102    | .09     |
| 182377   | SJC; 18 AWG    | .58        | .24    | .22     | .20     |

## Bushing Assembly Tool

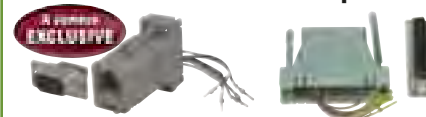
- For use with strain relief bushings, above



| Part No. | Description  | 1       | 10      | 100     |
|----------|--------------|---------|---------|---------|
| 73470    | Bushing tool | \$42.19 | \$38.94 | \$33.51 |

Open an account with us to consolidate your monthly billing and save time.  
1-800-831-4242

## RS-232-to-RJ11/RJ45 Modular Jack Adapters



66181

**Quantity SAVE**

66237

Change your RS-232 port to an RJ11 or RJ45 modular jack. This will allow you to use modular phone cable rather than RS-232 cable, thus simplifying networking applications. Comes complete with all necessary wiring and hardware.

| Part No. | Description           | 1      | 10     | 100    |
|----------|-----------------------|--------|--------|--------|
| 204265   | DB9 M to RJ11 (6P4C)  | \$1.95 | \$1.66 | \$1.24 |
| 66181    | DB9 M to RJ11 (6P6C)  | 2.59   | 2.35   | 2.09   |
| 66190    | DB9 M to RJ45 (8P8C)  | 2.89   | 2.65   | 2.35   |
| 114738   | DB9 F to RJ11 (6P4C)  | 1.95   | 1.79   | 1.59   |
| 66202    | DB9 F to RJ11 (6P6C)  | 2.79   | 2.55   | 2.29   |
| 66212    | DB9 F to RJ45 (8P8C)  | 2.99   | 2.69   | 2.45   |
| 66229    | DB25 M to RJ11 (6P6C) | 2.95   | 2.35   | 1.99   |
| 66237    | DB25 M to RJ45 (8P8C) | 2.99   | 2.69   | 2.45   |
| 204273   | DB25 F to RJ11 (6P4C) | 1.95   | 1.75   | 1.31   |
| 66245    | DB25 F to RJ11 (6P6C) | 2.59   | 2.20   | 1.65   |
| 66253    | DB25 F to RJ45 (8P8C) | 2.89   | 2.59   | 2.29   |

⊕ Blue Part No. = Limited Quantity Available

## Telco Adapters

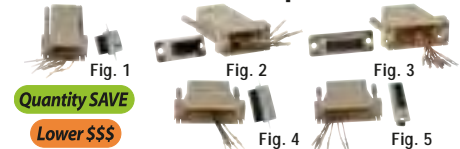


Fig. 1

Fig. 2

Fig. 3

**Quantity SAVE**

**Lower \$\$\$**

Fig. 4

Fig. 5

| Part No. | Fig. | Prod. No. | Description       | 1      | 10     | 100    |
|----------|------|-----------|-------------------|--------|--------|--------|
| 614969   | 1    | 45-5109   | 6C RJ12 to DB9 M  | \$2.49 | \$2.27 | \$1.71 |
| 614977   | 1    | 45-5110   | 8C RJ45 to DB9 M  | 2.45   | 2.31   | 2.21   |
| 614985   | 2    | 45-5111   | 4C RJ11 to DB9 F  | 2.49   | 2.27   | 1.71   |
| 614993   | 2    | 45-5112   | 6C RJ12 to DB9 F  | 2.45   | 2.31   | 1.96   |
| 615005   | 2    | 45-5113   | 8C RJ45 to DB9 F  | 2.45   | 2.31   | 1.96   |
| 615013   | 3    | 45-5117   | 8C RJ45 to DB15 F | 3.39   | 2.73   | 2.34   |
| 615021   | 4    | 45-5123   | 8C RJ45 to DB25 M | 2.89   | 2.73   | 2.34   |
| 615030   | 5    | 45-5127   | 8C RJ45 to DB25 F | 2.69   | 2.13   | 1.99   |



## Nylon Cable Ties

## Standard

70560

- Cable ties made from UL approved Nylon 66
- Temperature range: -40°C to +85°C
- Flammability rating: UL 94V-2
- Color: clear (except P/N 182676 white)



## • Sold in increments of 100

Blue Part No. = Limited Quantity Available

Quantity SAVE

| Part No. | Tensile Strength (lbs.) | Dimensions (L" x W") | 100  | 1000 |
|----------|-------------------------|----------------------|------|------|
| 70560    | 18                      | 3.1 x 0.10           | .025 | .015 |
| 126543   | 18                      | 4.0 x 0.10           | .02  | .014 |
| 182676   | 18                      | 4.75 x 0.13          | .025 | .019 |
| 182651   | 18                      | 5.5 x 0.13           | .035 | .025 |
| 139150   | 18                      | 8.0 x 0.10           | .06  | .04  |
| 182669   | 18                      | 8.0 x 0.13           | .075 | .05  |
| 182685   | 18                      | 8.0 x 0.18           | .036 | .033 |
| 70907    | 40                      | 5.8 x 0.10           | .035 | .029 |
| 190756   | 40                      | 10.0 x 0.14          | .12  | .086 |
| 190772   | 40                      | 11.0 x 0.19          | .10  | .075 |
| 190764   | 40                      | 13.0 x 0.14          | .10  | .075 |

\* White

## Weather Resistant

104141

- Contains Carbonate A for greater resistance to ultraviolet rays in outdoor use
- Color: black

## • Sold in increments of 100

UV Resistant

| Part No. | Tensile Strength (lbs.) | Dimensions (L" x W") | 100  | 1000 |
|----------|-------------------------|----------------------|------|------|
| 139125   | 18                      | 3.0 x 0.90           | .045 | .034 |
| 104141   | 18                      | 4.0 x 0.10           | .044 | .029 |
| 104133   | 40                      | 5.8 x 0.10           | .047 | .031 |
| 190782   | 40                      | 8.0 x 0.13           | .085 | .065 |
| 190800   | 40                      | 10.0 x 0.14          | .10  | .09  |
| 190802   | 40                      | 13.0 x 0.14          | .113 | .088 |

## Cable Tie Assortments

- Tensile strength: 18-50 lbs.

145701:  
1000 pcs. (4"L); 10 colors150412:  
500 pcs. (4"L); 300 pcs. (8"L);  
50 pcs. (11"L), 5 colors

145701 (closeup)

| Part No. | Wt. (lbs.) | 1       | 10      | 50      |
|----------|------------|---------|---------|---------|
| 145701   | 0.7        | \$9.49  | \$8.49  | \$7.39  |
| 150412   | 1.7        | \$16.49 | \$15.25 | \$14.15 |

## Cable Tie Tool

- 2.5 - 5mm width (of cable)
- Tension adjustable
- Twist to cut surplus tie end
- Spring return action • Metal

Blue Part No. = Limited Quantity Available



| Part No. | Cross Ref. No. | 1       | 5       | 10      |
|----------|----------------|---------|---------|---------|
| 182297   | 0302TG-7       | \$16.99 | \$15.99 | \$14.99 |

Contractor Grade  
Cable Ties

Avery Dennison™ cable ties are available in a wide variety of sizes and in three different materials.



These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

See Our Avery Dennison Cable Ties Offering at  
[www.jameco.com/Prod/AveryTies](http://www.jameco.com/Prod/AveryTies)

## Cable Clips

These nail-in cable clips are designed for use with RG-6 cables.

- For RG-6 type cables
- Includes 1" nail
- 100 per pack



295591



295611

| Part No. | Description                   | 1      | 10     |
|----------|-------------------------------|--------|--------|
| 295603   | Single RG-6 cable clip, white | \$3.39 | \$2.85 |
| 295591   | Single RG-6 cable clip, black | 3.19   | 2.65   |
| 295611   | Dual RG-6 cable clip, white   | 3.45   | 2.85   |
| 295620   | Dual RG-6 cable clip, black   | 3.45   | 2.95   |

## Self Adhesive Wire Marker

- 90 markers per number
- Stick to wires for permanent identification
- Cloth tape label numbered 0-9
- Used after or before terminal



| Part No. | Cross Ref. No. | 1      | 10     |
|----------|----------------|--------|--------|
| 182262   | 0215WMB-1      | \$7.09 | \$6.45 |

## 3M Tape Wire Marker

- For marking wires with numerical sequence
- Self adhesive tapes numbered 0-9
- Size: (tape) 96"L x 0.25"W



| Part No. | Description              | 1       | 10      |
|----------|--------------------------|---------|---------|
| 159231   | Numerical tape dispenser | \$32.95 | \$28.90 |

3M ScotchCode™ STD-C Wire  
Marker Tape Dispenser

The 3M™ ScotchCode™ tape dispenser is a compact, carry-along dispenser with ten refillable compartments that hold eight-foot rolls of non-smear polyester tape. Used for marking binder groups, wire or cable, the tapes' high tack, acrylic adhesive resists solvents, oil and water, and adheres firmly to insulation surfaces. An end-loop hooks the dispenser easily to a tool pouch or belt.



| Part No. | Description           | 1       | 5       |
|----------|-----------------------|---------|---------|
| 652164   | Marker tape dispenser | \$35.99 | \$34.96 |

## Cable Markers

- UL approved natural nylon
- 10 piece minimum

Quantity SAVE



| Part No. | Size           | 10     | 100    | 1000   |
|----------|----------------|--------|--------|--------|
| 182705   | 1.5"L x .75"W  | \$0.10 | \$0.09 | \$0.08 |
| 182713   | 2.5"L x 1.76"W | .25    | .23    | .173   |

## RIP-TIE

## Cable Wrap

- Patented - one end permanently attaches to the cable and the other end has a pull tab
- Durable - made of the best quality hook and loop touch fastener tested for 10,000 closures with no loss of holding strength
- Reusable and permanent • 3 per pack



| Part No. | Description      | 1      | 10     |
|----------|------------------|--------|--------|
| 700681   | 1"W x 6"L, black | \$8.49 | \$8.29 |

## 3M Adhesive Cord Clips

Organize cords behind computers, appliances and entertainment centers. They remove cleanly and may be reused with a new Command™ adhesive strip. Holds wires up to 3/8 inch in diameter. 4 medium clips and 5 small adhesive strips per pack.



| Part No. | Description         | 1      | 10     |
|----------|---------------------|--------|--------|
| 645861   | Adhesive cord clips | \$3.89 | \$3.44 |

## 3M Small Cord Clips

3M™ Cord Clips with Command™ Adhesive help organize all of those unsightly cords that run from the back of computers, appliances and home entertainment centers. They mount easily to any clean wall or finished wood surface and can be moved just as easily with replacement adhesive strips. 4 clips and 5 small adhesive strips per pack.



| Part No. | Description         | 1      | 10     |
|----------|---------------------|--------|--------|
| 645853   | Adhesive cord clips | \$3.49 | \$3.12 |

## RIP-TIE Rip-Tie Lite &amp; Wrap Strap

- Patented - one end permanently attaches to the cable and the other end has a pull tab
- Durable - made of the best quality hook and loop touch fastener tested for 10,000 closures with no loss of holding strength
- Reusable and permanent
- 10 per pack



NEW

| Part No. | Description           | 1      | 10     |
|----------|-----------------------|--------|--------|
| 700699   | 1/2"W x 8"L, rainbow  | \$8.75 | \$8.55 |
| 700701   | 1/2"W x 8"L, black    | 8.75   | 8.55   |
| 744624   | 1/2"W x 10"L, rainbow | 12.25  | 11.99  |
| 744632   | 1/2"W x 10"L, black   | 12.25  | 11.99  |

## RIP-TIE

## Gecko Tape

- Low cost
- Non-adhesive, self-gripping tape

NEW



| Part No. | Description         | 1      | 10     |
|----------|---------------------|--------|--------|
| 744667   | 1/2"W x 30'L, black | \$4.79 | \$4.69 |
| 744675   | 1/2"W x 75'L, black | 11.69  | 11.45  |

## RIP-TIE

## Cable Catch

- Easy to install, simply peel-away adhesive cover of the cable catch
- Anchor cords, cables, & wires neatly along surfaces and out of the way
- Acrylic pressure sensitive adhesive securely attaches to equipment racks, desks, or walls
- Pull of the tab releases bundle for easy rearranging and quick equipment set-ups • 5 per pack



NEW

| Part No. | Description      | 1       | 10      |
|----------|------------------|---------|---------|
| 744683   | 1"W x 4"L, black | \$15.59 | \$15.25 |

See Page 329 for more Rip-Tie Products

**3M Heat Shrink Tubing Kit**

3M™ FP-301 is a heat shrinkable flexible polyolefin tubing that offers an outstanding balance of electrical, physical and chemical properties for a wide variety of industrial and military applications. Rated for 275°F (135°C) continuous operation.



285481:  
Black 102 pieces

645976

- Assorted pre-shrink sizes: 3/16" (30 pcs.); 1/4" (28 pcs.); 3/8" (20 pcs.); 1/2" (14 pcs.); 3/4" (6 pcs.); 1" (4 pcs.) • Pre-cut to 6" lengths

645976: Assorted Colors 133 pieces

- 7 colors: black, red, white, yellow, blue, green and clear
- Assorted pre-shrink sizes: 3/32" (35 pcs.); 1/8" (28 pcs.); 3/16" (21 pcs.); 1/4" (21 pcs.); 3/8" (14 pcs.); 1/2" (14 pcs.) • Pre-cut to 6" lengths

| Part No. | Description        | 1       | 5       | 10      |
|----------|--------------------|---------|---------|---------|
| 285481   | Black 102-pc. kit  | \$56.95 | \$53.70 | \$52.69 |
| 645976   | Colors 133-pc. kit | \$8.85  | \$5.40  | \$4.64  |

**Heat Shrink Tubing**

- 2:1 uniform shrink ratio
- Color: black

**Polyolefin Tubing**

- Shrink temp: 90°C
- Only sold in 10' & 100' lengths

| Part No. | Dia. Before (mm) | Length (ft.) | 1      | 25     |
|----------|------------------|--------------|--------|--------|
| 644834   | 0.12" (3)        | 10           | \$1.40 | \$1.33 |
| 644851   | 0.12" (3)        | 100          | 10.49  | 9.99   |
| 644869   | 0.16" (4)        | 10           | 1.44   | 1.37   |
| 644877   | 0.16" (4)        | 100          | 12.49  | 11.85  |
| 644906   | 0.20" (5)        | 10           | 1.55   | 1.47   |
| 644914   | 0.20" (5)        | 100          | 14.99  | 14.25  |
| 644931   | 0.24" (6)        | 10           | 1.69   | 1.64   |
| 644949   | 0.24" (6)        | 100          | 16.49  | 15.67  |
| 644957   | 0.31" (8)        | 10           | 2.25   | 2.15   |
| 644965   | 0.31" (8)        | 100          | 17.99  | 17.49  |
| 644973   | 0.43" (11)       | 10           | 2.79   | 2.69   |
| 644981   | 0.43" (11)       | 100          | 24.99  | 23.75  |
| 644990   | 0.59" (15)       | 10           | 3.69   | 3.49   |
| 645001   | 0.59" (15)       | 100          | 35.99  | 34.19  |

**Polyolefin Flexible Tubing**

- Dielectric strength: 1300V
- Flame retardant
- Shrink temp.: 90°C
- Temp. range: -45°C to +125°C
- \* Precut 39" length (1 meter)



| Part No. | Before Dia. (mm) | 1*     | 10*    | 100*   |
|----------|------------------|--------|--------|--------|
| 71327    | .059" (1.5) ⊕    | \$ .55 | \$ .46 | \$ .41 |
| 71871    | .079" (2.0) ⊕    | .55    | .45    | .39    |
| 71280    | .098" (2.5) ⊕    | .69    | .59    | .54    |
| 72063    | .197" (5.0) ⊕    | .89    | .76    | .57    |
| 216478   | .275" (7.0) ⊕    | .99    | .84    | .63    |
| 226245   | .375" (9.5) ⊕    | 1.09   | .98    | .88    |

**Polyolefin Heat Shrink Tubing****alpha FIT221/FIT221B Series**

Insulation from environment and resistance from water fungus and UV light. Use for general purpose insulation and repair, wire and cable harnessing/bundling, cable and connector protection, and wire and tubing splicing and connecting.

- Operating temp: -55°C to 135°C
- Shrinkage ratio: 2:1 @ 121°C
- Dielectric strength: 500V/mil (197kV/cm) • Volume resistivity: 10<sup>14</sup>Ω-cm

⊕ Blue Part No. = Limited Quantity Available

**Black (4 ft.)**

| Part No. | Product No.  | Min./Max. ID (ins.) | 1     | 5     | 25    |
|----------|--------------|---------------------|-------|-------|-------|
| 419101   | FIT221B-3/64 | .046/.023           | \$.61 | \$.55 | \$.53 |
| 419127   | FIT221B-1/16 | .063/.031           | .62   | .56   | .55   |
| 419143   | FIT221B-3/32 | .093/.046           | .66   | .59   | .58   |
| 419160   | FIT221B-1/8  | .125/.062           | .71   | .64   | .63   |
| 419186   | FIT221B-3/16 | .187/.093           | .95   | .84   | .83   |
| 419207   | FIT221B-1/4  | .250/.125           | 1.19  | 1.06  | 1.05  |
| 419223   | FIT221B-3/8  | .375/.187           | 1.21  | 1.08  | 1.07  |
| 419240   | FIT221B-1/2  | .500/.250           | 1.37  | 1.22  | 1.21  |
| 419266   | FIT221B-3/4  | .750/.375           | 2.05  | 1.80  | 1.79  |
| 419282   | FIT221B-1    | 1.00/.500           | 3.05  | 2.74  | 2.73  |

**Clear (4 ft.)**

|        |             |           |       |       |       |
|--------|-------------|-----------|-------|-------|-------|
| 419119 | FIT221-3/64 | .046/.023 | \$.71 | \$.64 | \$.63 |
| 419135 | FIT221-1/16 | .063/.031 | .73   | .68   | .67   |
| 419151 | FIT221-3/32 | .093/.046 | .80   | .74   | .68   |
| 419178 | FIT221-1/8  | .125/.062 | .90   | .81   | .78   |
| 419194 | FIT221-3/16 | .187/.093 | 1.10  | .98   | .95   |
| 419215 | FIT221-1/4  | .250/.125 | 1.36  | 1.18  | 1.12  |
| 419231 | FIT221-3/8  | .375/.187 | 1.55  | 1.37  | 1.32  |
| 419258 | FIT221-1/2  | .500/.250 | 1.75  | 1.55  | 1.40  |
| 419274 | FIT221-3/4  | .750/.375 | 2.45  | 2.29  | 2.14  |
| 419291 | FIT221-1    | 1.00/.500 | 3.45  | 3.22  | 2.94  |

**Black (6 ins.)**

| Part No. | Product No.  | Min./Max. ID (ins.) | Bags of | 1       | 5       |
|----------|--------------|---------------------|---------|---------|---------|
| 419389   | FIT221B-3/64 | .046/.023           | 40      | \$11.95 | \$11.36 |
| 419400   | FIT221B-1/16 | .063/.031           | 36      | 11.95   | 11.36   |
| 419426   | FIT221B-3/32 | .093/.046           | 32      | 11.65   | 11.05   |
| 419442   | FIT221B-1/8  | .125/.062           | 28      | 11.55   | 11.04   |
| 419469   | FIT221B-3/16 | .187/.093           | 24      | 11.65   | 11.05   |
| 419485   | FIT221B-1/4  | .250/.125           | 20      | 11.95   | 11.31   |
| 419506   | FIT221B-3/8  | .375/.187           | 16      | 11.55   | 10.95   |
| 419522   | FIT221B-1/2  | .500/.250           | 14      | 11.45   | 10.61   |
| 419549   | FIT221B-3/4  | .750/.375           | 12      | 10.55   | 9.98    |
| 419565   | FIT221B-1    | 1.00/.500           | 8       | 12.29   | 11.66   |

**Clear (6 ins.)**

|        |             |           |    |         |         |
|--------|-------------|-----------|----|---------|---------|
| 419397 | FIT221-3/64 | .046/.023 | 40 | \$12.35 | \$11.72 |
| 419418 | FIT221-1/16 | .063/.031 | 36 | 11.95   | 11.35   |
| 419434 | FIT221-3/32 | .093/.046 | 32 | 11.55   | 10.95   |
| 419451 | FIT221-1/8  | .125/.062 | 28 | 12.75   | 12.08   |
| 419477 | FIT221-3/16 | .187/.093 | 24 | 11.55   | 10.95   |
| 419493 | FIT221-1/4  | .250/.125 | 20 | 12.35   | 11.72   |
| 419514 | FIT221-3/8  | .375/.187 | 16 | 11.55   | 10.95   |
| 419531 | FIT221-1/2  | .500/.250 | 14 | 11.45   | 10.61   |
| 419557 | FIT221-3/4  | .750/.375 | 12 | 11.95   | 11.35   |
| 419573 | FIT221-1    | 1.00/.500 | 8  | 11.95   | 11.35   |

**FLEXO® Clean-Cut Braided Sleeve**

- Dense braid structure provides fuller coverage
- Fray resistant when cut with scissors
- Cut and abrasion resistant
- Maintains properties across wide temperature range
- Color: black
- UV resistant
- Length: 25 feet



| Part No. | Product No.   | Min/Max Flex (ins.) | Inside Dia.(ins.) | Outside Dia.(ins.) | 1       | 10      |
|----------|---------------|---------------------|-------------------|--------------------|---------|---------|
| 162157   | CCP0.25BK25 ⊕ | 5/32 – 7/16         | 0.250             | 0.440              | \$15.95 | \$14.95 |
| 162165   | CCP0.50BK25 ⊕ | 1/4 – 3/4           | 0.500             | 0.750              | 17.95   | 14.49   |
| 690013   | CCP0.75BK25   | 5/8 – 1             | 0.750             | 0.798              | 13.09   | 12.45   |
| 690021   | CCP1.00BK25   | 3/4 – 1 3/16        | 1.000             | 1.048              | 14.49   | 13.99   |
| 690030   | CCP1.25BK25   | 1 – 1 1/2           | 1.250             | 1.298              | 17.09   | 16.49   |
| 690048   | CCP1.50BK25   | 1 1/4 – 2           | 1.500             | 1.548              | 21.15   | 20.39   |

**FLEXO® PET Braided Sleeve**

- Braided from 10 mil polyethylene terephthalate monofilament yarns
- UL recognized component
- High tensile strength
- Maintains properties across wide temperature range
- Conforms to FMVSS 302
- Color: black
- UV resistant
- Length: 25 feet



| Part No. | Product No. | Min/Max Flex (ins.) | Inside Dia.(ins.) | Outside Dia.(ins.) | 1      | 10     |
|----------|-------------|---------------------|-------------------|--------------------|--------|--------|
| 693679   | PTN0.25BK25 | 1/8 – 7/16          | 0.250             | 0.300              | \$6.05 | \$5.75 |
| 693687   | PTN0.38BK25 | 3/16 – 5/8          | 0.375             | 0.425              | 8.89   | 8.45   |
| 695383   | PTN0.50BK25 | 1/4 – 3/4           | 0.500             | 0.550              | 10.55  | 9.99   |
| 695391   | PTN0.75BK25 | 1/2 – 1 1/4         | 0.750             | 0.800              | 15.85  | 15.05  |
| 695412   | PTN1.25BK25 | 3/4 – 1 3/4         | 1.250             | 1.300              | 19.09  | 18.15  |



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JAMECO ValuePro

## Audio/Video Cables and Adapters

## RCA Cables

| Part No. | Description  | 1      | 10     | 25     |
|----------|--|--------|--------|--------|
| 228443   | 3' stereo RCA (2) male to (2) male plugs, gold plated  | \$1.49 | \$1.39 | \$1.29 |
| 183311   | 4' RCA male to male plug (black)                       | .99    | .89    | .79    |
| 206973   | 4' RCA male to male plug (yellow)                      | .99    | .89    | .79    |
| 106374   | 6' RCA male to male plug                               | 1.19   | 1.02   | .94    |
| 228419   | 6' mono RCA male plug to female jack                   | 1.65   | 1.45   | 1.25   |
| 228486   | 6' RCA stereo (2) male plugs to (2) female jacks       | 1.25   | 1.15   | 1.05   |
| 228451   | 6' RCA stereo (2) male to (2) male plugs, gold plated  | 1.79   | 1.69   | 1.59   |
| 228401   | 6' RCA stereo (2) male plugs to 3.5mm stereo male plug | 1.55   | 1.39   | 1.25   |
| 228427   | 10' RCA female jack to male plug                       | 2.35   | 1.95   | 1.79   |
| 29348    | 10' RCA male to male plug (yellow)                     | 1.69   | 1.55   | 1.35   |
| 228460   | 12' RCA stereo (2) male to (2) male plugs, gold plated | 2.09   | 1.89   | 1.75   |
| 225980   | 12' RCA (3) male to (3) male plugs, gold plated        | 4.95   | 4.27   | 3.17   |
| 225998   | 20' RCA (3) male to (3) male plugs, gold plated        | 7.99   | 6.79   | 5.09   |
| 228435   | 25' mono RCA male to male plug, nickel plated          | 2.19   | 2.09   | 1.99   |
| 228478   | 25' RCA stereo (2) male to (2) male plugs, gold plated | 2.39   | 2.29   | 2.19   |

## Video/Audio Patch Cables

| Part No. | Description                               | 1      | 10     | 25     |
|----------|---|--------|--------|--------|
| 228216   | 3' stereo video patch cable, gold plated  | \$1.19 | \$1.13 | \$1.07 |
| 228574   | 25' stereo video patch cable, gold plated | 6.99   | 6.29   | 5.65   |
| 228582   | 50' stereo video patch cable, gold plated | 12.59  | 11.35  | 10.19  |

JAMECO ValuePro

## S-VHS Cables and Adapters

Low-loss fully shielded Super-VHS cables, 4-contact mini DIN plus S-VHS cable and dual-RCA plug stereo cables.

- Fully-molded color coded gold RCA connectors
- Flexible black PVC jacket
- Applications: home theaters, DSS receivers, Super-VHS VCRs, camcorders, and DVD players

228558/228566: 95% spiral wound shield S-VHS/audio conductors

| Part No. | Description                                  | 1      | 10     | 25     |
|----------|--|--------|--------|--------|
| 228591   | 6' S-VHS video cable, gold plated            | \$2.15 | \$1.95 | \$1.79 |
| 228558   | 6' S-VHS audio-video cable, gold plated      | 12.95  | 11.65  | 10.49  |
| 228566   | 12' S-VHS audio-video cable, gold plated     | 14.95  | 13.45  | 12.15  |
| 228603   | 12' S-VHS video cable, gold plated           | 2.65   | 2.35   | 2.10   |
| 228611   | 25' S-VHS video cable, gold plated           | 4.05   | 3.85   | 3.65   |
| 229809   | S-video 4-pin mini DIN female to female jack | 2.85   | 2.59   | 2.29   |
| 229391   | S-video male plug to RCA video female jack   | 5.39   | 4.85   | 4.39   |
| 295881   | S-video female jack to RCA video male plug   | 5.39   | 4.85   | 4.39   |
| 303351   | S-video male plug to RCA video female jack   | 5.39   | 4.85   | 4.39   |

## Other Manufacturers — Great Deals

|        |                                   |        |        |        |
|--------|-----------------------------------|--------|--------|--------|
| 682662 | S-video M-M plug 6'               | \$1.95 | \$1.79 | \$1.59 |
| 683075 | S-video M-RCA female jack adapter | 4.95   | 4.49   | 3.59   |

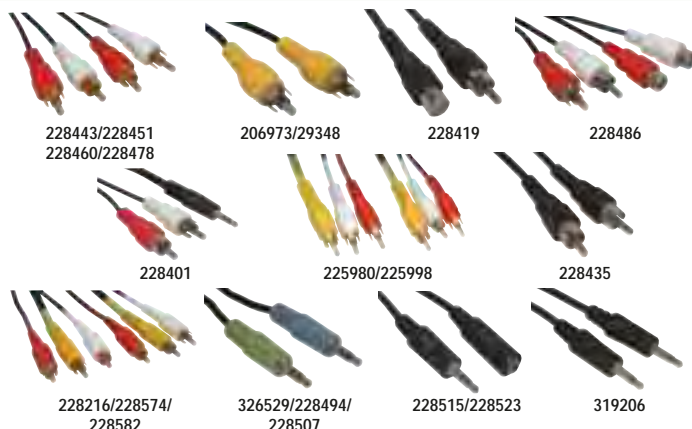
## BNC To RCA Cable

Fully molded nickel connectors. Used for displays that require a single BNC connection from a PAL/NTSC video source.

| Part No. | Description            | 1      | 10     | 50     | 100    |
|----------|------------------------|--------|--------|--------|--------|
| 683059   | RG-59 BNC to RCA cable | \$3.95 | \$3.49 | \$2.95 | \$2.19 |

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## 3.5mm Audio Patch Cables

| Part No. | Description                                    | 1      | 10     | 25     |
|----------|--|--------|--------|--------|
| 319206   | 27' 3.5mm mono male to male plug               | \$1.09 | \$ .94 | \$ .89 |
| 326511   | 1' 3.5mm stereo male to male plug              | 1.75   | 1.35   | 1.01   |
| 664288   | 3' 3.5mm stereo male to male plug (black)      | 1.09   | .99    | .75    |
| 326529   | 6' 3.5mm stereo male to male plug (green/blue) | 1.39   | 1.18   | .89    |
| 228494   | 6' 3.5mm stereo male to male plug (black)      | 1.39   | 1.19   | .99    |
| 228515   | 6' 3.5mm stereo male plug to female jack       | 1.49   | 1.35   | 1.25   |
| 228507   | 12' 3.5mm stereo male to male plug (black)     | 1.69   | 1.49   | 1.29   |
| 228523   | 12' 3.5mm stereo male plug to female jack      | 1.65   | 1.49   | 1.35   |

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## 3.5mm Female Jacks and Male Plugs



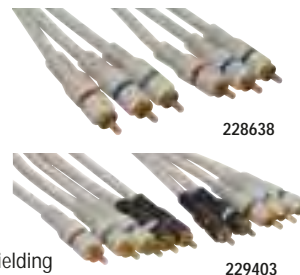
- Threaded screw on housing
- 1mm diameter solder eyelets
- Shield crimp tabs

231160/231167: With spring strain relief

| Part No. | Cross Ref. No. | Description                  | 1      | 10     | 100    | 1000   |
|----------|----------------|------------------------------|--------|--------|--------|--------|
| 109496   | PJ035PM        | Mono F jack, 3.5mm hole size | \$ .45 | \$ .40 | \$ .36 | \$ .32 |
| 165730   | PJ0354         | Mono F jack, 3.5mm hole size | .69    | .59    | .49    | .39    |
| 101152   | PJ1035         | Mono male plug, plastic      | .49    | .38    | .35    | .29    |
| 231160   | PJ1035         | Mono male plug, plastic      | 1.25   | 1.19   | 1.09   | 1.09   |
| 231176   | AP-340         | Stereo male plug, plastic    | .55    | .43    | .36    | .32    |
| 231167   | AP-343         | Stereo male plug, metal      | 1.79   | 1.60   | 1.45   | 1.30   |

## Component Video and Audio Cables

- Low-loss 75Ω oxygen-free copper center conductors and foam dielectric provide maximum signal transfer bandwidth for improved picture quality and performance
- Corrosion resistant, precise 24k gold-plated connectors ensure long lasting quality
- Fully molded color coded connectors attached to an ultra-flexible PVC jacket provide excellent strain relief, easy installation, and identification
- 100%, 0.012mm aluminum-polyester foil shielding and spiral-wound copper-braid shielding provides clear, noise-free, vivid picture quality



Blue Part No. = Limited Quantity Available

| Part No. | Description                                    | 1      | 2      | 5      |
|----------|--|--------|--------|--------|
| 228620   | 6' component video RGB cable                   | \$9.99 | \$8.99 | \$7.96 |
| 228638   | 12' component video RGB cable                  | 19.95  | 17.95  | 16.16  |
| 228646   | 25' component video RGB cable                  | 25.95  | 23.36  | 21.02  |
| 229403   | 6' component video RGB and stereo audio cable  | 14.95  | 13.46  | 12.11  |
| 229411   | 12' component video RGB and stereo audio cable | 25.95  | 23.36  | 21.02  |
| 229420   | 25' component video RGB and stereo audio cable | 29.95  | 26.96  | 23.86  |



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## Audio Connectors

- Adapters
- Cable connectors
- Jacks
- Male and female



### XLR Phone Adapters and Jacks

### XLR Lockable Speaker Connectors

### BNC Connectors

### 1/4" Professional Phone Plugs

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## Audio Adapters and Cables



### RCA Audio Adapters

| Part No. | Description                                    | 1      | 10     | 25     | 100    |
|----------|--|--------|--------|--------|--------|
| 228283   | RCA female jack to mono 1/4" male plug         | \$ .99 | \$ .89 | \$ .69 | \$ .55 |
| 228267   | RCA female to female jack coupler, gold plated | .95    | .79    | .55    | .45    |

### RCA Y-Cables

|        |   |        |        |        |        |
|--------|---|--------|--------|--------|--------|
| 139038 | 5' Y-cable 1/8" stereo M plug to (2) RCA M plugs      | \$2.25 | \$1.99 | \$1.79 | \$1.61 |
| 682793 | 6' Y-cable 1/8" stereo M plug to (2) RCA mono M plugs | 2.29   | 2.09   | 1.89   | 1.70   |
| 228371 | 6' Y-cable (2) RCA M plugs to RCA F jack              | .99    | .89    | .80    | .72    |
| 228355 | 6' Y-cable RCA M plug to (2) RCA F jacks              | 1.29   | 1.15   | 1.06   | .79    |
| 228380 | 6' Y-cable (2) RCA F jacks to 3.5mm stereo plug       | 1.95   | 1.76   | 1.59   | 1.19   |

### 3.5mm Y-Cables

|        |   |        |        |        |        |
|--------|---|--------|--------|--------|--------|
| 228398 | 6' Y-cable (2) 3.5mm stereo female jacks to 3.5mm stereo male plugs | \$1.95 | \$1.65 | \$1.35 | \$1.25 |
| 228380 | 6' Y-cable (2) RCA F jacks to 3.5mm stereo M plug                   | 1.95   | 1.76   | 1.59   | 1.19   |

## RG-6/RG-59 75Ω Coaxial Cables

Quantity SAVE



| Part No. | Type  | Length (ft.) | 1      | 10     |
|----------|-------|--------------|--------|--------|
| 85585    | RG-59 | 3            | \$1.05 | \$ .95 |
| 355670   | RG-59 | 75           | 17.95  | 13.46  |
| 297668   | RG-6  | 75           | 14.69  | 13.99  |

## RCA Metal Plugs

- High-quality metal housing RCA plugs

229876



### Gold plated metal housing w/ spring strain relief for 6.7mm cables

| Part No. | Description    | 1      | 10     | 25     | 100    |
|----------|----------------|--------|--------|--------|--------|
| 229876   | Black stripes  | \$1.89 | \$1.69 | \$1.55 | \$1.39 |
| 229868   | Red stripes    | 1.89   | 1.69   | 1.55   | 1.39   |
| 229884   | White stripes  | 1.89   | 1.61   | 1.37   | 1.13   |
| 230287   | Yellow stripes | 1.89   | 1.69   | 1.55   | 1.39   |

## RCA Plastic Plugs

- High-quality plastic RCA plugs

229930



### Plastic screw-on cover w/ integral cable protection

| Part No. | Description  | 1      | 10     | 25     | 100    |
|----------|--------------|--------|--------|--------|--------|
| 229921   | Black (5 pk) | \$1.15 | \$1.05 | \$ .91 | \$ .82 |
| 229930   | Red (5 pk)   | 1.15   | 1.05   | .91    | .82    |
| 229913   | White (5 pk) | 1.19   | 1.09   | .95    | .89    |

NEW

## RCA Jacks



Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Fig. 7

- Standard RCA jacks for audio and video signals

| Part No. | Fig. | Description                  | Dimensions (WxDxH)  | 1      | 10     | 100    | 1000   |
|----------|------|------------------------------|---------------------|--------|--------|--------|--------|
| 220581   | 1    | PCB mount, white             | .44" x .56" x .48"  | \$ .45 | \$ .31 | \$ .28 | \$ .22 |
| 220556   | 1    | PCB mount, red               | .44" x .56" x .48"  | .45    | .31    | .28    | .22    |
| 220572   | 1    | PCB mount, black             | .44" x .56" x .48"  | .49    | .29    | .27    | .24    |
| 112476   | 1    | PCB mount, red               | .44" x .58" x .48"  | .39    | .35    | .31    | .19    |
| 169502   | 2    | PCB mount, black             | .40" x .85" x .50"  | .39    | .35    | .32    | .26    |
| 1537150  | 3    | PCB mount, red/white         | 1.1" x .40" x .51"  | .69    | .63    | .49    | .35    |
| 689881   | 4    | PCB mnt., 1x3 grid, rd/wt/yw | 1.7" x .61" x .62"  | .99    | .89    | .79    | .65    |
| 159484   | 5    | Panel mount, black           | .84"W x .38"H       | .49    | .39    | .33    | .24    |
| 172340   | 5    | Panel mount, red             | .84"W x .38"H       | .49    | .39    | .31    | .23    |
| 319249   | 6    | Panel mnt., 1x4 grid, rd/bk  | 2.9" x .48" x .98"  | 1.19   | .99    | .94    | .89    |
| 319071   | 7    | Panel mnt., 2x4 grid, rd/bk  | 3.0" x .49" x 1.40" | 1.39   | 1.19   | 1.13   | 1.07   |

**Switchcraft** Switchcraft is a leading supplier and manufacturer of electronic and electromechanical components for the audio, video, telecommunication, computer, medical, military, appliance, transportation and instrumentation industries. Their components include jacks, connectors, jack panels, plugs, jackfields, patch cords, power plugs, switches, EAC power receptacles and molded cable assemblies.

## RCA Plugs and Jacks

| Part No. | Product No. | Fig. | Description                      | Dimensions (mm) | 1      | 10     | 25     | 100    |
|----------|-------------|------|----------------------------------|-----------------|--------|--------|--------|--------|
| 281800   | 3502R       | 1    | RCA mono phone audio plug, metal | 33.8L x 5.0 ID  | \$1.75 | \$1.37 | \$1.21 | \$1.10 |
| 281797   | 3501FP      | 2    | RCA phone audio jack, metal      | 16.3 x 6.0 Dia. | 1.29   | 1.00   | .97    | .95    |

## Audio Plugs and Jacks

| Part No. | Product No. | Fig. | Description                           | Dimensions (mm)      | 1      | 10     | 25     | 100    |
|----------|-------------|------|---------------------------------------|----------------------|--------|--------|--------|--------|
| 281869   | 750R        | 3    | 3.5mm mono audio plug, plastic        | 14.0 x 41.5 x 5.7 ID | \$3.05 | \$2.55 | \$2.34 | \$2.31 |
| 281834   | 41R         | 4    | 3.5mm audio jack                      | 7.8 x 5.9            | 1.29   | 1.22   | 1.19   | 1.16   |
| 297297   | 850R        | 5    | 2.5mm mono phone audio plug, plastic  | 25.8 x 6.35 Dia.     | 2.99   | 2.91   | 2.84   | 2.76   |
| 281789   | 297R        | 6    | 1/4" stereo phone audio plug, metal   | 73.7 x 7.6 ID        | 4.59   | 3.82   | 3.19   | 2.91   |
| 281771   | 280R        | 7    | 1/4" mono phone audio plug, metal     | 73.7 x 7.6 ID        | 3.45   | 3.10   | 2.84   | 2.60   |
| 281762   | 267R        | 8    | 1/4" stereo phone audio plug, plastic | 73.7 x 7.6 ID        | 4.99   | 3.79   | 3.47   | 3.17   |
| 281754   | 250R        | 9    | 1/4" mono phone audio plug, plastic   | 73.7 x 7.6 ID        | 2.95   | 2.62   | 2.40   | 2.27   |
| 281746   | 12BR        | 10   | 1/4" stereo phone audio jack          | 14.7 x 9.1 Dia.      | 1.49   | 1.39   | 1.32   | 1.24   |
| 281738   | 11R         | 11   | 1/4" mono phone audio jack            | 12.8 x 9.1 Dia.      | 1.39   | 1.29   | 1.19   | 1.15   |
| 296892   | 12AR        | 10   | 1/4" mono phone audio jack, metal     | 31.7 x 9.4 Dia.      | 1.89   | 1.50   | 1.40   | 1.31   |
| 297001   | 121         | 12   | 1/4" mono phone audio jack, metal     | 63.5 x 12.7 Dia.     | 7.55   | 6.60   | 6.52   | 6.47   |
| 296981   | 112BR       | 13   | 1/4" phone audio jack, 3C, plastic    | 34.8 x 15.87 Dia.    | 1.75   | 1.61   | 1.56   | 1.53   |
| 297027   | 131R        | 12   | 1/4" phone audio jack, 3C, plastic    | 63.5 x 12.7 Dia.     | 9.25   | 7.01   | 6.43   | 5.82   |

## Power Plugs and Jacks

| Part No. | Product No. | Fig. | Description                          | Dimensions (mm)       | 1      | 10     | 25     | 100    |
|----------|-------------|------|--------------------------------------|-----------------------|--------|--------|--------|--------|
| 281842   | 712AR       | 14   | 2.5mm DC power jack, panel mount     | 15.8 x 7.5 Dia.       | \$2.05 | \$2.03 | \$2.02 | \$1.51 |
| 281851   | 722AR       | 14   | 2.1mm DC power jack, panel mount     | 15.1 x 7.5 Dia.       | 2.15   | 2.00   | 1.93   | 1.85   |
| 297588   | RAPC722R    | 16   | 2.0mm x 5.5mm DC power jack, RA      | 10.9H x 8.8W x 14.3D  | 1.13   | 1.08   | 1.02   | .92    |
| 297553   | PC712AR     | 15   | 2.5mm x 5.5mm DC power jack, metal   | 23.3 x 11.0 Dia.      | 2.99   | 2.77   | 2.59   | 2.53   |
| 297529   | L712AR      | 17   | 2.5mm x 5.5mm DC power jack, metal   | 23.3 x 11.0 Dia.      | 3.55   | 3.26   | 2.94   | 2.83   |
| 281877   | 760R        | 18   | 2.5mm x 5.5mm DC power plug, plastic | 9.6 x 36.3 x 5.7 Dia. | 2.45   | 2.25   | 2.07   | 1.89   |
| 297617   | S760R       | 18   | 2.1mm x 5.5mm DC power plug, plastic | 25.4 x 9.5 Dia.       | 2.45   | 2.26   | 2.21   | 2.16   |

## Microphone (XLR) Connectors

| Part No. | Product No. | Fig. | Description                      | Dimensions (mm)       | 1      | 10     | 25     | 100    |
|----------|-------------|------|----------------------------------|-----------------------|--------|--------|--------|--------|
| 277026   | A3FR        | 19   | 3-pin female, metal              | 82.5 x 5.3 Dia.       | \$4.49 | \$3.99 | \$3.58 | \$3.26 |
| 281560   | A3MR        | 20   | 3-pin male, metal                | 70.3 x 5.3 Dia.       | 3.79   | 3.17   | 2.83   | 2.58   |
| 281640   | D3FR        | 21   | 3-pin female, metal, panel mount | 27.0W x 36.3H x 30.6D | 5.89   | 4.50   | 4.13   | 3.75   |
| 281586   | A4FR        | 19   | 4-pin female, metal              | 82.0 x 5.5 Dia.       | 6.95   | 5.78   | 5.36   | 4.87   |
| 281594   | A4MR        | 20   | 4-pin male, metal                | 71.2 x 4.8 Dia.       | 5.09   | 4.41   | 4.05   | 3.68   |
| 297457   | C4MR        | 23   | 4-pin male, metal, panel mount   | 30.2 x 36.3 Dia.      | 6.55   | 6.01   | 5.67   | 4.60   |
| 281607   | A5FR        | 19   | 5-pin female, metal              | 82.0 x 4.7 Dia.       | 12.09  | 9.06   | 8.31   | 7.55   |
| 281615   | A5MR        | 20   | 5-pin male, metal                | 70.2 x 5.3 Dia.       | 8.95   | 7.55   | 6.92   | 6.30   |
| 281691   | D5MR        | 22   | 5-pin male, metal, panel mount   | 27.0W x 36.3H x 30.6D | 10.15  | 7.62   | 6.98   | 6.52   |
| 281623   | A6FR        | 19   | 6-pin female, metal              | 80.2 x 4.6 Dia.       | 10.79  | 10.25  | 9.45   | 8.32   |
| 281631   | A6MR        | 20   | 6-pin male, metal                | 70.5 x 4.5 Dia.       | 9.55   | 8.78   | 8.15   | 7.51   |
| 281703   | D6FR        | 21   | 6-pin female, metal, panel mount | 27.0W x 36.3H x 30.6D | 21.09  | 15.79  | 14.49  | 10.87  |
| 281711   | D6MR        | 22   | 6-pin male, metal, panel mount   | 27.0W x 36.3H x 30.6D | 12.35  | 11.80  | 9.49   | 8.25   |



**JAMECO ValuePro**

### Microphone (XLR) Connectors

**A Jameco EXCLUSIVE**

| Part No. | Cross Ref. No. | Description                                 | 1      | 10     |
|----------|----------------|---|--------|--------|
| 319011   | 250-710        | 3-pin male microphone, metal                | \$2.35 | \$2.17 |
| 319003   | 250-720        | 3-pin female microphone, metal              | 2.29   | 2.20   |
| 319046   | 250-700        | 3-pin male microphone, metal, panel mount   | 3.25   | 2.79   |
| 319038   | 250-705        | 3-pin female microphone, metal, panel mount | 4.15   | 3.39   |

**JAMECO ValuePro**

### Professional Microphone (XLR) Cables and Adapters

**A Jameco EXCLUSIVE**

**Quantity SAVE**

| Part No. | Cross Ref. No. | Description                              | 1      | 10     |
|----------|----------------|--|--------|--------|
| 305251   | 251-310        | 3-pin female to female gender changer    | \$7.49 | \$6.99 |
| 305200   | 251-320        | 3-pin male to male gender changer        | 8.25   | 6.19   |
| 305285   | 251-330        | 1/4" jack to 3-pin female XLR adapter    | 8.65   | 6.47   |
| 305277   | 251-340        | 1/4" jack to 3-pin male XLR adapter      | 7.05   | 5.29   |
| 305293   | 255-290        | 1/4" jack to 3-pin XLR female cable, 20' | 10.39  | 7.79   |
| 307694   | 255-293        | 1/4" jack to 3-pin XLR female cable, 60' | 19.59  | 14.69  |

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

AMP

Lower \$\$\$

## CPC Circular Plastic Connectors

**Series 1:** Standard density, signal & low-current applications

- Accepts type III+; high-current type II & subminiature coax contacts
- Voltage rating: 600V (UL)

## Free Hanging Receptacle

| Part No. | Product No. | Arr.  | Sex      | 1      | 10     |
|----------|-------------|-------|----------|--------|--------|
| 495314   | 206036-3♣   | 17-16 | Standard | \$2.05 | \$1.87 |
| 495154   | 206043-3♣   | 17-14 | Reverse  | 2.49   | 2.36   |
| 495189   | 206151-2♣   | 23-37 | Standard | 2.45   | 2.33   |
| 495197   | 206153-1♣   | 11-4  | Standard | 1.89   | 1.71   |
| 495091   | 206429-1    | 11-4  | Reverse  | 2.85   | 2.61   |
| 495242   | 206705-2♣   | 13-9  | Standard | 1.95   | 1.76   |
| 495269   | 206838-2♣   | 23-24 | Standard | 3.79   | 3.51   |
| 495226   | 206430-2♣   | 11-4  | Reverse  | 1.89   | 1.71   |

## Square Flange Receptacle with Mounting Holes

| Part No. | Product No. | Arr.  | Sex      | 1      | 10     |
|----------|-------------|-------|----------|--------|--------|
| 421382   | 206036-1♣   | 17-16 | Standard | \$2.05 | \$1.87 |
| 495146   | 206043-1    | 17-14 | Reverse  | 2.05   | 1.87   |
| 495171   | 206151-1♣   | 23-37 | Standard | 2.35   | 2.14   |
| 495200   | 206306-1    | 23-37 | Reverse  | 2.69   | 2.56   |
| 495218   | 206430-1    | 11-4  | Reverse  | 2.09   | 1.95   |
| 495234   | 206705-1♣   | 13-9  | Standard | 1.95   | 1.79   |
| 495251   | 206838-1♣   | 23-24 | Standard | 2.45   | 2.32   |
| 495306   | 211769-1♣   | 17-9  | Reverse  | 3.29   | 3.12   |
| 495162   | 206061-1♣   | 11-4  | Standard | 1.85   | 1.68   |
| 495285   | 211398-1♣   | 13-7  | Reverse  | 2.95   | 2.67   |
| 495293   | 211401-1♣   | 13-7  | Standard | 3.25   | 3.09   |

## Plugs

| Part No. | Product No. | Arr.  | Sex      | 1      | 10     |
|----------|-------------|-------|----------|--------|--------|
| 495322   | 206037-1♣   | 17-16 | Standard | \$2.55 | \$2.32 |
| 495031   | 206044-1    | 17-14 | Reverse  | 2.55   | 2.49   |
| 495066   | 206150-1♣   | 23-37 | Standard | 2.99   | 2.74   |
| 495074   | 206305-1    | 23-37 | Reverse  | 3.89   | 3.53   |
| 495103   | 206708-1    | 13-9  | Standard | 3.25   | 2.94   |
| 495058   | 206837-1♣   | 23-24 | Standard | 3.59   | 3.26   |
| 421374   | 211399-1♣   | 13-7  | Standard | 3.05   | 2.77   |
| 495138   | 211400-1♣   | 13-7  | Reverse  | 3.35   | 3.20   |
| 495120   | 211768-1♣   | 17-9  | Reverse  | 3.49   | 3.34   |
| 495082   | 206060-1    | 11-4  | Standard | 2.45   | 2.33   |
| 495111   | 211766-1♣   | 17-9  | Standard | 3.95   | 3.68   |
| 495040   | 211772-1♣   | 23-19 | Reverse  | 4.25   | 3.91   |

**Series 2:** High density applications

- Voltage rating: 250V (UL)
- Current: 7.5A max.
- Housing: thermoplastic black, UL94V-0 rated
- Feed thru contact: copper alloy, plated gold over nickel
- Max. wire insulation diameter: 0.068"
- Accepts size 20DF or 20DM crimp snap-in contacts

## Free Hanging Receptacle

| Part No. | Product No. | Arr.  | Sex      | 1      | 10     |
|----------|-------------|-------|----------|--------|--------|
| 421391   | 205481-2♣   | 11-8  | Standard | \$3.29 | \$3.12 |
| 495349   | 206152-1♣   | 17-28 | Standard | 4.59   | 4.28   |
| 495331   | 206486-2♣   | 11-9  | Standard | 3.39   | 3.16   |

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

**Series 2 (continued):** High density applications

## Square Flange Receptacle with Mounting Holes

| Part No. | Product No. | Arr.  | Sex      | 1      | 10     |
|----------|-------------|-------|----------|--------|--------|
| 495453   | 205840-3♣   | 17-28 | Standard | \$3.69 | \$3.37 |
| 495437   | 205841-1♣   | 11-8  | Standard | 3.29   | 3.12   |
| 495470   | 206038-1♣   | 17-28 | Reverse  | 3.49   | 3.31   |
| 495429   | 206433-1♣   | 11-8  | Reverse  | 3.35   | 3.16   |
| 495445   | 206436-1    | 11-9  | Standard | 3.49   | 3.43   |
| 495461   | 205843-1♣   | 23-63 | Standard | 5.75   | 5.37   |
| 495488   | 206438-1♣   | 23-57 | Reverse  | 5.95   | 5.29   |

## Plugs

| Part No. | Product No. | Arr.  | Sex      | 1      | 10        |
|----------|-------------|-------|----------|--------|-----------|
| 495381   | 205838-1♣   | 11-8  | Standard | \$4.45 | \$4.02    |
| 495402   | 208839-1♣   | 17-28 | Standard | 4.35   | 4.04      |
| 495411   | 205842-1♣   | 23-63 | Standard | 5.65   | 5.33      |
| 495365   | 206039-1♣   | 17-28 | Reverse  | 4.49   | 4.19      |
| 495357   | 206434-1♣   | 11-8  | Reverse  | 4.09   | 3.77      |
| 495373   | 206437-1♣   | 23-57 | Reverse  | 5.75   | 5.37      |
| 495390   | 206485-1    | 11-9  | Standard | \$6.35 | 4.35 4.03 |

**Series 3** — Low-density power applications

- Accepts type XII power contacts w/c can carry up to 25A per contacts, accommodates 16-10 AWG
- Housing: thermoplastic black, UL94V-0 rated

## Square Flange G with Mounting Holes

| Part No. | Product No. | Arr. | Sex      | 1      | 10     |
|----------|-------------|------|----------|--------|--------|
| 495550   | 206036-2    | 17-3 | Standard | \$2.75 | \$2.51 |
| 495568   | 206137-1♣   | 23-7 | Standard | 4.05   | 3.70   |
| 495541   | 206425-1♣   | 17-3 | Reverse  | 2.65   | 2.41   |

## Plugs

| Part No. | Product No. | Arr. | Sex      | 1      | 10     |
|----------|-------------|------|----------|--------|--------|
| 495517   | 206037-2    | 17-3 | Standard | \$3.59 | \$3.29 |
| 495525   | 206136-1♣   | 23-7 | Standard | 3.79   | 3.42   |
| 495509   | 206226-1♣   | 23-7 | Reverse  | 3.85   | 3.48   |
| 495496   | 206426-1♣   | 17-3 | Reverse  | 4.59   | 4.23   |

**Series 4:** Combination of standard & power density application

- Housing: thermoplastic black, UL94V-0
- Accepts type III+ and type XII power contacts

## Plugs

| Part No. | Product No. | Arr.   | No. of Cavities |           |        |        |
|----------|-------------|--------|-----------------|-----------|--------|--------|
|          |             |        | Power           | Multimate | 1      | 10     |
| 495584   | 206612-1♠   | 23-22M | 2               | 20 ..     | \$4.39 | \$4.01 |
| 495576   | 207485-1♠   | 23-16M | 4               | 12 ....   | 3.69   | 3.35   |

## Lowest Price Guarantee

Have you found a product at a lower print-advertised price? We'll beat that price by 10%, right down to our cost!

## Contacts

- Crimp type; except for \*P/N 526424
- Contact body – brass or phosphor bronze
- Finish:  
A: 30μ" gold over nickel B: Tin-lead  
C: 15μ" gold over nickel D: 30μ" select gold over nickel  
E: 50μ" gold over nickel F: Silver plated  
G: gold flash over nickel

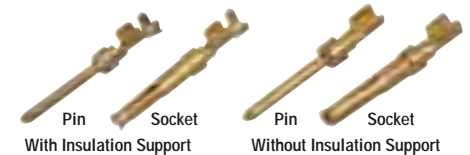
## Type III+ Snap-In Crimp Pins w/ Retention Spring

| Part No. | Product No. | AWG   | Finish | Type   | 1      | 100    |
|----------|-------------|-------|--------|--------|--------|--------|
| 526424   | 66180-1     | 18-16 | A      | Pin*   | \$0.84 | \$0.60 |
| 526432   | 66181-1     | 18-16 | A      | Socket | .68    | .63    |
| 526459   | 66103-3     | 24-20 | C      | Pin    | .33    | .295   |
| 526563   | 1-66103-5   | 24-20 | B      | Pin    | .34    | .303   |
| 526361   | 1-66103-7♣  | 24-20 | A      | Pin    | .44    | .361   |
| 526379   | 66105-3     | 24-20 | C      | Socket | .42    | .40    |
| 526504   | 1-66105-6   | 24-20 | A      | Socket | .40    | .304   |
| 526491   | 1-66360-0♣  | 18-14 | B      | Socket | .33    | .238   |
| 526475   | 1-66360-1♣  | 18-14 | A      | Socket | .60    | .447   |
| 526686   | 66360-3♣    | 18-14 | C      | Socket | .75    | .61    |
| 526441   | 1-66361-1♣  | 18-14 | A      | Pin    | .41    | .323   |

## Type XII, Precision Formed Snap-In Crimp Pins

- Material: copper
- Assist spring

| Part No. | Product No. | AWG   | Finish | Type   | 1      | 10     |
|----------|-------------|-------|--------|--------|--------|--------|
| 526580   | 66259-2♣    | 10    | A      | Pin    | \$5.19 | \$4.07 |
| 527355   | 66741-6♣    | 10    | A      | Socket | 7.79   | 5.93   |
| 526571   | 66261-1♣    | 16-12 | B      | Pin    | 3.65   | 3.16   |
| 527380   | 66740-8♣    | 16-12 | B      | Socket | 4.49   | 3.87   |
| 526598   | 66261-2♣    | 16-12 | E      | Pin    | 6.25   | 6.07   |
| 527363   | 66740-6     | 16-12 | E      | Socket | 6.99   | 5.73   |
| 526601   | 66261-4     | 16-12 | F      | Pin    | 2.85   | 2.32   |
| 527371   | 66740-2♣    | 16-12 | F      | Socket | 4.35   | 3.10   |



With Insulation Support

Without Insulation Support

Size 20DF Contacts

- Material: brass
- Minimum order 10 pieces

| Part No. | Product No. | AWG   | Finish | Type    | 10     | 100    |
|----------|-------------|-------|--------|---------|--------|--------|
| 223108   | 66507-9♣    | 28-24 | A      | Pin     | \$0.18 | \$0.12 |
| 527531   | 66505-9♣    | 28-24 | A      | Socket† | .15    | .136   |
| 223095   | 1-66507-0♣  | 28-24 | G      | Pin     | .115   | .092   |
| 223221   | 1-66505-0♣  | 28-24 | G      | Socket† | .18    | .12    |
| 223141   | 745254-6♣   | 26-22 | A      | Pin†    | .25    | .18    |
| 223247   | 745253-6♣   | 26-22 | A      | Socket† | .175   | .127   |
| 223191   | 66506-9♣    | 24-20 | A      | Pin     | .16    | .15    |
| 223298   | 66504-9♣    | 24-20 | A      | Socket  | .17    | .15    |
| 223167   | 1-66506-0♣  | 24-20 | G      | Pin     | .16    | .15    |
| 223255   | 1-66504-0♣  | 24-20 | G      | Socket  | .17    | .15    |

† with insulation supports



## AMP

## CPC Accessories

### Cable Clamps

Provides strain relief and can be used in all series receptacles and plugs.

- Material: thermoplastic black, UL94V-0 rated
- 494127: body and crimp halves – zinc alloy nickel plated with stainless steel screws and washers



### Self Centering Cable Clamp

Used in applications where strain relief protection is required and the cable or wire bundle is large and/or stiff.

- Material: black thermoplastic, UL94V-0 rated



| Part No. | Product No. | Shell Size | 1      | 10     |
|----------|-------------|------------|--------|--------|
| 494021   | 207774-1    | 23         | \$4.69 | \$4.31 |

### Keying Plug

Used in multimate contact cavities that accept type II, type II+ and subminiature coaxial socket contacts.

- Housing: nylon natural, UL94V-0



| Part No. | Product No. | Description                 | 1      | 10     |
|----------|-------------|-----------------------------|--------|--------|
| 493968   | 206509-1    | Keying plug for series 2 .. | \$ .33 | \$2.77 |

### Internal Cable Grip & Boot

Provide strain relief capabilities for jacketed cables in applications where aesthetic appearance is essential.

- Shell size: 11
- Prepackaged: please order in increments of 10



| Part No. | Product No. | Description      | 10     | 100    |
|----------|-------------|------------------|--------|--------|
| 493950   | 207490-1    | Cable grip ..... | \$2.14 | \$2.09 |
| 493941   | 207489-1    | Cable boot ..... | 2.04   | 1.90   |

### Circular Sealing Cap with Plastic Wrap

Used to protect exposed contacts for unmated receptacles.

- Material: thermoplastic black, UL94V-1 rated
- Shell size: 11 • For Series 1 & 2 CPC connectors
- Sealing gasket: black neoprene
- Bead chain: steel, nickel plated
- Bead chain coupling: brass nickel plated



| Part No. | Product No. | Description       | 1      | 10     |
|----------|-------------|-------------------|--------|--------|
| 495277   | 206903-1    | Sealing cap ..... | \$3.05 | \$2.80 |

## AMP Pro-Crimper II Hand Tools

Commercial grade hand tool for crimping various products. Features ratchet control to provide complete crimp cycle. Accepts both pinned- and shouldered-style die sets. Locators are provided with pinned-style die sets for proper contact and wire positioning, and to help minimize contact rotation and bending during crimping.

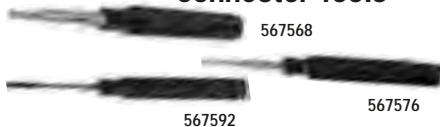


526176: Hand crimper tool  
526352: Die set for Type II/VI pin & socket contacts

| Part No. | Product No. | 1        | 5        |
|----------|-------------|----------|----------|
| 526176   | 58448-2     | \$159.59 | \$145.06 |
| 526352   | 58495-1     | 145.19   | 138.26   |

## Amphenol

### Series 44 Circular Connector Tools



| Part No. | Product No. | Description            | 1       | 10      |
|----------|-------------|------------------------|---------|---------|
| 567568   | 356-258     | Insertion tool .....   | \$41.05 | \$38.97 |
| 567576   | 356-259     | Pin extractor .....    | 24.69   | 23.46   |
| 567592   | 356-260     | Socket extractor ..... | 24.69   | 23.46   |

## AMP Z-Pack Connectors



- 55-125 contacts • Right angle female connectors
- Standard and reduced crosstalk versions
- Glass filled polyester housing

These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

See Our AMP Z-Pack Connector Offering at [www.Jameco.com/Prod/AMPZPack](http://www.Jameco.com/Prod/AMPZPack)



## MX150L Sealed Connectors

The MX150L™ connector system is designed to meet the needs for a rugged, environmentally sealed connector system supporting both low-level signal and power applications.



These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

See Our Molex MX150L Series Offering at [www.Jameco.com/Prod/MolexMX150L](http://www.Jameco.com/Prod/MolexMX150L)

## AMP

## AMPLIMITE™ Screw Retainers & Locks

### Metal Screw Retainers for Metal Shell Connectors (HDE/HDP)

- Retaining clip: 0.012" (0.31mm) stainless steel
- Male screw: steel, zinc plated
- Finish: yellow
- Thread size: 4-40



| Part No. | Product No. | Description              | 1      | 10     |
|----------|-------------|--------------------------|--------|--------|
| 613763   | 205980-1    | Male screw retainers     | \$ .40 | \$3.61 |
| 614109   | 745647-1    | Female screw locks ..... | .84    | .79    |

### Female Screw Locks for Metal Shell and All Plastic Connectors (HDE/HDF/HDP)



- Cold rolled steel, zinc plated

### For HD All Plastic Plugs & Receptacles with Integral Stand-Offs

- Thread length: 0.560"

Lower \$\$\$

| Part No. | Product No. | Finish | Thread Size | 1      | 10     |
|----------|-------------|--------|-------------|--------|--------|
| 613827   | 207719-1    | Yellow | 4-40 .....  | \$1.05 | \$ .93 |
| 613835   | 207719-3    | Clear  | 4-40 .....  | .96    | .87    |
| 525501   | 747223-3    | Clear  | 2-56 .....  | \$2.75 | 2.25   |

### For HD All Plastic Right Angle Plugs and Receptacles with Integral Stand-Offs

- Thread length: 0.250"

| Part No. | Product No. | Finish | Thread Size | 1      | 10     |
|----------|-------------|--------|-------------|--------|--------|
| 613878   | 207952-1    | Yellow | 4-40 .....  | \$1.49 | \$1.33 |
| 613886   | 207952-3    | Clear  | 4-40 .....  | .97    | .87    |
| 614088   | 745563-1    | Yellow | 4-40 .....  | 1.25   | 1.13   |

### For HDE Metal Shell or All Plastic Plugs & Receptacles

- Thread length: 0.250"

| Part No. | Product No. | Finish | Thread Size | 1      | 10     |
|----------|-------------|--------|-------------|--------|--------|
| 614096   | 745563-3    | Clear  | 4-40 .....  | \$ .96 | \$ .92 |

### Low Profile Screw Retainer Kit (HDF)

- Cold rolled steel, zinc plated



| Part No. | Product No. | Description             | 1      | 10     |
|----------|-------------|-------------------------|--------|--------|
| 614184   | 746881-1    | Male retainer kit ..... | \$1.41 | \$1.26 |

## AMP MICTOR® Receptacles



- Level III board-to-board connector
- High density and controlled impedance
- Redundant contact design

These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

See Our AMP Mictor Receptacle Offering at [www.Jameco.com/Prod/AMPMICTOR](http://www.Jameco.com/Prod/AMPMICTOR)

## AMP

Find additional AMP CPC Connectors, Contacts and Accessories at [www.Jameco.com/Prod/CPC](http://www.Jameco.com/Prod/CPC)

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

Color Code Legend

New Sale Lower\$ QtySave

**AMP**

## D-Subminiature Connectors

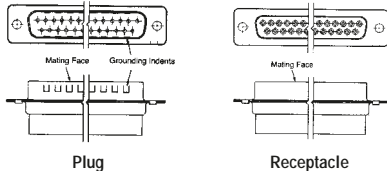
- Dielectric withstanding voltage: 1000VAC (one minute)
- Nylon, flame retardant, 94V-0 rated, glass filled
- Low-cost, high-performance, precision formed crimp contacts
- Standard mounting method with 0.120" diameter mounting holes
- Insulation resistance: 5000MΩ
- UL/CSA recognized and certified

**Quantity SAVE**

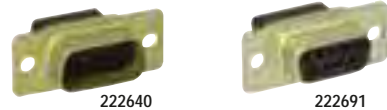
**Lower \$\$\$**

### Crimp-Type Contacts

- Current rating: 1.2A to 3.7A
- Intermateable with any size 20 D-sub dimensionally complying with MIL-C-24308
- Crimp snap-in contacts allows loading of only the number of contacts being used



### Zinc-Plated Shell



| Part No. | Product No. | Cont. | Description   | 1      | 10     | 100    |
|----------|-------------|-------|---------------|--------|--------|--------|
| 222640   | 205204-1    | 9     | Plug .....    | \$ .73 | \$ .71 | \$ .68 |
| 222658   | 205206-1    | 15    | Plug .....    | .96    | .88    | .66    |
| 222691   | 205203-1    | 9     | Receptacle .. | .89    | .80    | .62    |
| 222703   | 205205-1    | 15    | Receptacle .. | .84    | .76    | .60    |
| 222711   | 205207-1    | 25    | Receptacle    | 1.05   | .95    | .71    |
| 222738   | 205211-1    | 50    | Receptacle    | 2.09   | 1.91   | 1.74   |

### Tin-Plated Shell



| Part No. | Product No. | Cont. | Description  | 1                     | 10     | 100    |
|----------|-------------|-------|--------------|-----------------------|--------|--------|
| 222754   | 205204-3    | 9     | Plug .....   | \$1.29                | \$1.15 | \$ .85 |
| 222762   | 205206-2    | 15    | Plug .....   | 1.20                  | 1.08   | .98    |
| 222789   | 205210-2    | 37    | Plug .....   | 2.39                  | 2.30   | 1.23   |
| 222797   | 205204-4    | 9     | Plug* .....  | .83                   | .75    | .57    |
| 222818   | 207464-2    | 25    | Plug* .....  | .88                   | .78    | .58    |
| 222826   | 205210-3    | 37    | Plug* .....  | 1.69                  | 1.49   | 1.12   |
| 222834   | 205212-3    | 50    | Plug* .....  | 1.43                  | 1.30   | 1.23   |
| 222842   | 205203-3    | 9     | Recept ..... | .69                   | .59    | .52    |
| 222914   | 205205-2    | 15    | Recept ..... | <del>\$ .88</del> .62 | .55    | .516   |
| 222922   | 207463-1    | 25    | Recept ..... | .68                   | .64    | .59    |

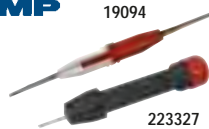
\* With grounding indents

## D-Sub Pin Insertion/Extraction Tools

- 527582/  
19094/223335:
- Plastic body; metal tips
- 223327: Handle with .050" hex wrench and exchangeable tips

**AMP**

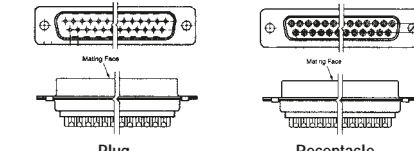
19094



| Part No. | Description                  | 1      | 10     |
|----------|------------------------------|--------|--------|
| 19094    | Red/white plastic body ..... | \$2.79 | \$2.49 |
| 527582   | AMP# 91067-1 .....           | 6.89   | 6.55   |
| 223335   | AMP# 91067-2 .....           | 5.65   | 5.35   |
| 223327   | AMP# 91285-1 .....           | 19.99  | 18.99  |

### Solder-Cup Contacts

- Current rating: 1.2A to 3.0A
- Intermateable with other D-sub connectors
- One-piece 94V-0 rated plastic insert
- Preloaded duplex-plated solder-cup contacts
- Shields offer full EMI shielding and ESD insulation
- Anti-solder wicking contact design



### Zinc-Plated Shell



| Part No. | Product No. | Cont. | Description | 1      | 10     | 100    |
|----------|-------------|-------|-------------|--------|--------|--------|
| 222957   | 747904-4    | 9     | Plug .....  | \$1.89 | \$1.59 | \$1.32 |
| 222965   | 747908-4    | 15    | Plug .....  | 2.65   | 2.19   | 1.75   |
| 222973   | 747912-4    | 25    | Plug .....  | 3.69   | 3.10   | 2.49   |
| 222981   | 747916-4    | 37    | Plug .....  | 5.45   | 4.56   | 3.42   |
| 223036   | 747905-4    | 9     | Receptacle  | 2.65   | 2.23   | 1.76   |
| 223044   | 747913-4    | 25    | Receptacle  | 4.75   | 3.99   | 3.19   |

### Tin-Plated Shell



| Part No. | Product No. | Cont. | Description | 1      | 10     | 100    |
|----------|-------------|-------|-------------|--------|--------|--------|
| 222990   | 747904-2    | 9     | Plug .....  | \$1.69 | \$1.55 | \$1.15 |
| 223001   | 747908-2    | 15    | Plug .....  | 2.39   | 2.24   | 2.03   |
| 223010   | 747912-2    | 25    | Plug .....  | 3.29   | 2.95   | 2.19   |
| 223028   | 747916-2    | 37    | Plug .....  | 5.29   | 4.29   | 3.84   |
| 223052   | 747905-2    | 9     | Receptacle  | 2.35   | 2.09   | 1.60   |
| 223061   | 747909-2    | 15    | Receptacle  | 3.45   | 2.99   | 2.55   |
| 223079   | 747913-2    | 25    | Receptacle  | 4.09   | 3.69   | 2.72   |
| 223087   | 747917-2    | 37    | Receptacle  | 6.65   | 5.69   | 4.19   |

**AMP**

## Plastic Hoods for D-Sub Connectors

- Cable clamp type: clam shell
- Cable exit angle: straight
- Standard clam shell length
- Body material, cable support gate, and cable clamp: thermoplastic
- Screw material: steel
- Screw plating: zinc



230914

| Part No. | Product No. | Positions | 1                      | 10     | 100    |
|----------|-------------|-----------|------------------------|--------|--------|
| 230893   | 205729-1    | 9         | \$2.25                 | \$1.85 | \$1.46 |
| 230906   | 205730-1    | 15        | 2.19                   | 2.14   | 2.09   |
| 230914   | 205718-1    | 25        | 1.95                   | 1.74   | 1.65   |
| 230922   | 205731-1    | 37        | 3.15                   | 2.64   | 2.25   |
| 230931   | 205732-1    | 50        | <del>\$2.95</del> 2.55 | 2.15   | 1.61   |

Blue Part No. = Limited Quantity

**AMP**

## D-Sub Contacts

- Pin material: brass
- socket material: phosphor bronze
- Contact plating
- \*A: Select – gold flash over nickel on entire contact, with additional gold (0.000030") on mating end;
- \*B: Duplex – gold (0.000030") on mating end, tin-lead on termination end, with entire contact nickel underplated;
- \*C: gold flash over nickel on entire contact;
- \*D: gold flash on mating end, tin-lead on termination end, with entire contact nickel underplated
- For use with AMP D-sub connectors (see left)
- Minimum order 10 pieces
- Blue Part No. = Limited Quantity

**Quantity SAVE**

**Lower \$\$\$**



\*Fig. 1 (male)



\*Fig. 2 (female)

With Insulation Support



\*Fig. 3 (male)



\*Fig. 4 (female)

Without Insulation Support



\*Fig. 5 (male)



\*Fig. 6 (female)

Without Insulation Support

### Male Crimp Contacts (size 20DF)

| Part No. | Product No. | Desc.* | AWG   | 10      | 100     | 1000    |
|----------|-------------|--------|-------|---------|---------|---------|
| 223095   | 1-66507-0   | 1C     | 28-24 | \$ .115 | \$ .092 | \$ .073 |
| 223124   | 66682-4     | 1A     | 28-24 | .22     | .176    | .132    |
| 223108   | 66507-9     | 1A     | 28-24 | .18     | .12     | .09     |
| 223132   | 745254-7    | 1C     | 26-22 | .25     | .23     | .22     |
| 223167   | 1-66506-0   | 1C     | 24-20 | .16     | .15     | .12     |
| 223175   | 205202-7    | 3C     | 24-20 | .27     | .26     | .25     |
| 223183   | 5-66506-9   | 1D     | 24-20 | .21     | .15     | .13     |
| 223191   | 66506-9     | 1A     | 24-20 | .16     | .15     | .112    |

### Female Crimp Contacts (size 20DF)

| Part No. | Product No. | Desc.* | AWG   | 10     | 100    | 1000   |
|----------|-------------|--------|-------|--------|--------|--------|
| 223221   | 1-66505-0   | 2C     | 28-24 | \$ .18 | \$ .12 | \$ .09 |
| 223239   | 66683-4     | 2A     | 28-24 | .16    | .126   | .108   |
| 223247   | 745253-6    | 2A     | 26-22 | .175   | .127   | .122   |
| 223255   | 1-66504-0   | 2C     | 24-20 | .17    | .15    | .11    |
| 223263   | 205201-7    | 4C     | 24-20 | .136   | .125   | .094   |
| 223271   | 5-66504-7   | 2D     | 24-20 | .16    | .12    | .10    |
| 223280   | 205201-5    | 4A     | 24-20 | .47    | .396   | .297   |
| 223298   | 66504-9     | 2A     | 24-20 | .17    | .15    | .13    |

### Male Solder Contact (size 20DF)

| Part No. | Product No. | Desc.* | AWG   | 10     | 100     | 1000    |
|----------|-------------|--------|-------|--------|---------|---------|
| 234982   | 66570-3     | 5A     | 28-24 | \$ .22 | \$ .152 | \$ .145 |

### Female Solder Contact (size 20DF)

| Part No. | Product No. | Desc.* | AWG       | 10      | 100    | 1000    |
|----------|-------------|--------|-----------|---------|--------|---------|
| 223319   | 66569-3     | 6A     | 18 (max.) | \$ .225 | \$ .18 | \$ .162 |

## Free Technical Support

Our knowledgeable Tech Support department is ready to answer your questions. Just call us! 1-800-831-4242

**AMP**

Find additional AMP D-Sub Connectors and Contacts at [www.Jameco.com/Prod/DSub](http://www.Jameco.com/Prod/DSub)

**AMPLIMITE™ D-Subminiature Connectors****HD-20 Right Angle PCB Mount 0.318" Setback**

614125



614248

- Housing: 94V-0 rated thermoplastic, black
- Front shell: steel, tin plated • Lead length: 0.125"
- Lead diameter: 0.026" • Lead spacing: 0.108"
- Socket plating: A: 30µ" gold mating end, tin-lead terminating end, nickel under plated; B: gold flash mating end, tin-lead terminating end, nickel under plated

**Without board locks, w/ threaded inserts**

| Part No. | Product No. | Plating | Pins | Gender | 1      | 10     |
|----------|-------------|---------|------|--------|--------|--------|
| 614125   | 745781-4    | A       | 9    | F      | \$1.95 | \$1.74 |
| 614248   | 745250-4    | A       | 9    | M      | 2.19   | 2.00   |
| 614133   | 745782-4♣   | A       | 15   | F      | 2.35   | 2.09   |
| 614221   | 745236-4♣   | A       | 15   | M      | 5.69   | 5.23   |
| 614141   | 745783-4    | A       | 25   | F      | 2.85   | 2.45   |
| 614230   | 745238-4♣   | A       | 25   | M      | 3.65   | 2.95   |
| 614150   | 745784-4♣   | A       | 37   | F      | 5.49   | 5.24   |

**With board locks, w/ threaded inserts**

| Part No. | Product No. | Plating | Pins | Gender | 1      | 10     |
|----------|-------------|---------|------|--------|--------|--------|
| 614504   | 747844-4    | A       | 9    | F      | \$2.05 | \$1.91 |
| 614441   | 747840-4    | A       | 9    | M      | 1.45   | 1.29   |
| 614491   | 747844-3♣   | B       | 9    | F      | 1.75   | 1.60   |
| 614432   | 747840-3♣   | B       | 9    | M      | 1.55   | 1.42   |
| 614539   | 747845-4    | A       | 15   | F      | 1.79   | 1.65   |
| 614467   | 747841-4    | A       | 15   | M      | 2.15   | 1.96   |
| 614555   | 747846-4    | A       | 25   | F      | 2.35   | 2.33   |
| 614475   | 747842-4    | A       | 25   | M      | 3.25   | 2.92   |
| 614547   | 747846-3    | B       | 25   | F      | 2.55   | 2.15   |
| 614571   | 747847-4♣   | A       | 37   | F      | 4.19   | 3.78   |
| 614483   | 747843-4♣   | A       | 37   | M      | 4.55   | 4.09   |

**With board locks, w/ fixed female screw locks**

| Part No. | Product No. | Plating | Pins | Gender | 1      | 10     |
|----------|-------------|---------|------|--------|--------|--------|
| 614459   | 747840-6♣   | A       | 9    | M      | \$1.89 | \$1.71 |
| 614512   | 747844-5♣   | B       | 9    | M      | 1.79   | 1.60   |
| 614521   | 747844-6♣   | A       | 9    | F      | 1.75   | 1.65   |
| 614563   | 747846-6♣   | A       | 25   | F      | 3.09   | 2.77   |

**HD-20 Straight PCB Mount**

614580



614205

- Housing: 94V-0 rated thermoplastic black
- Shell: steel, tin plated • Lead spacing: 0.108"
- Lead diameter: 0.026"
- Socket contacts phosphor bronze w/ 30µ" gold on mating end, tin-lead termination end, 50µ" nickel underplated • Lead length: 0.5"

**With female screw locks**

| Part No. | Product No. | Pins | Gender | 1      | 10     | 100    |
|----------|-------------|------|--------|--------|--------|--------|
| 614934   | 1-747150-4♣ | 9    | F      | \$4.89 | \$4.42 | \$4.17 |
| 614580   | 747871-2♣   | 9    | M      | 4.05   | 3.95   | 3.75   |
| 525296   | 1-745967-4♣ | 25   | F      | 5.19   | 4.65   | 4.39   |

**With 4-40 threaded inserts**

| Part No. | Product No. | Pins | Gender | 1      | 10     | 100    |
|----------|-------------|------|--------|--------|--------|--------|
| 614213   | 747150-8♣   | 9    | F      | \$4.39 | \$4.01 | \$3.78 |
| 614598   | 747871-8♣   | 9    | M      | 4.05   | 3.65   | 3.45   |
| 614176   | 747967-8♣   | 25   | F      | 6.29   | 5.66   | 5.35   |

**With standard mounting holes**

| Part No. | Product No. | Pins | Gender | 1      | 10     | 100    |
|----------|-------------|------|--------|--------|--------|--------|
| 614205   | 747150-2♣   | 9    | F      | \$5.25 | \$4.85 | \$4.72 |

**HDE-20 Metal Shell IDC Connectors**

- Front shell: steel, tin plated
- Contacts: phosphor bronze
- Plating: 30µ" gold on mating end, tin-lead on termination end, with entire contact nickel underplated
- Contact identification No. 2 for 26-22AWG

| Part No. | Product No. | Positions | 1      | 10     | 100    |
|----------|-------------|-----------|--------|--------|--------|
| 614070   | 747491-2♣   | 9         | \$2.35 | \$1.91 | \$1.67 |

**HDF-20 Low Profile Metal Shell (For Round Conductor Flat Ribbon Cable)**

614301



614387

- Housing cover and cable stabilizer: 94V-0 rated thermoplastic, black
- Front shell: steel, tin plated
- Contacts: phosphor bronze with 30µ" gold on mating end, 100µ" bright tin-lead terminating end, nickel underplated

**With standard mounting holes**

| Part No. | Product No. | Pins | Gender | 1      | 10     | 100    |
|----------|-------------|------|--------|--------|--------|--------|
| 614328   | 747303-4♣   | 9    | F      | \$4.25 | \$3.80 | \$3.59 |
| 614361   | 747306-4♣   | 9    | M      | 3.95   | 3.90   | 3.75   |
| 614310   | 747303-3    | 15   | F      | 4.49   | 4.45   | 4.35   |
| 614352   | 747306-3♣   | 15   | M      | 4.49   | 4.45   | 4.35   |
| 614301   | 747303-2    | 25   | F      | 6.09   | 5.49   | 5.19   |
| 614344   | 747306-2    | 25   | M      | 5.99   | 5.39   | 5.08   |
| 614299   | 747303-1♣   | 37   | F      | 8.05   | 7.21   | 6.90   |
| 614336   | 747306-1♣   | 37   | M      | 8.05   | 7.21   | 6.80   |

**With threaded inserts**

| Part No. | Product No. | Pins | Gender | 1      | 10     | 100    |
|----------|-------------|------|--------|--------|--------|--------|
| 525481   | 747043-4♣   | 9    | M      | \$5.39 | \$4.29 | \$4.05 |
| 525499   | 747052-2♣   | 25   | F      | 7.05   | 6.39   | 5.76   |

**Thermoplastic body w/ standard mounting holes**

| Part No. | Product No. | Pins | Gender | 1      | 10     |
|----------|-------------|------|--------|--------|--------|
| 614387   | 747318-4    | 9    | F      | \$3.99 | \$3.49 |
| 614408   | 747321-4    | 9    | M      | 4.39   | 3.75   |
| 614379   | 747318-2♣   | 25   | F      | 8.25   | 5.04   |
| 614395   | 747321-2♣   | 25   | M      | 5.59   | 5.04   |

**Cable stabilizers**

| Part No. | Product No. | Positions | 1      | 10      | 100     |
|----------|-------------|-----------|--------|---------|---------|
| 614281   | 747275-4♣   | 9         | \$0.22 | \$0.195 | \$0.166 |
| 614272   | 747275-3♣   | 15        | .25    | .22     | .19     |
| 614264   | 747275-2♣   | 25        | .29    | .26     | .247    |
| 614256   | 747275-1♣   | 37        | .33    | .293    | .26     |

**HD-22 Right Angle PCB Solder 0.350" Setback**

- Front shell: steel, tin plated
- Housing: 94V-0 rated thermoplastic, black
- Socket: phosphor bronze with 30µ" gold on mating end, tin-lead termination end, with nickel underplating



614715

**With board locks and threaded inserts**

| Part No. | Product No. | Pins | Gender | 1      | 10     | 100  |
|----------|-------------|------|--------|--------|--------|------|
| 614715   | 748481-5♣   | 26   | F      | \$4.99 | \$4.53 | 4.28 |
| 614723   | 748482-2♣   | 44   | F      | 3.15   | 2.84   | 2.69 |

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

**AMPLIMITE™ D-Sub Connector Accessories**

614029



614424

- Die cast shield material and finish: zinc alloy, plated bright nickel over bright copper
- Plastic shield: thermoplastic black
- 4-40 fillister head screws & hex nuts: steel, zinc plated
- 4-40 mounting screws: steel zinc plated
- Jackscrews: stainless steel, passivated

**Die cast cable clamps**

| Part No. | Product No. | Cable (O.D) max. | 1      | 10     |
|----------|-------------|------------------|--------|--------|
| 614029   | 745171-1♣   | 0.240"           | \$4.05 | \$3.67 |
| 614037   | 745171-2    | 0.200"           | 5.45   | 5.02   |
| 614045   | 745172-1♣   | 0.375"           | 4.49   | 4.08   |
| 614053   | 745172-2♣   | 0.300"           | 5.19   | 4.46   |
| 614061   | 745173-3♣   | 0.430"           | 4.29   | 3.89   |

**Jackscrews**

| Part No. | Product No. | Thread Size | 1      | 10     |
|----------|-------------|-------------|--------|--------|
| 525544   | 747784-8    | 4-40        | \$4.79 | \$4.70 |
| 614424   | 747784-3    | 4-40        | 1.89   | 1.73   |

**Spring Latch**

- Material: stainless steel (for use with HDE and HDP metal shell)

| Part No. | Product No. | 1      | 10     |
|----------|-------------|--------|--------|
| 614117   | 745779-2♣   | \$0.99 | \$0.90 |

**HDP-20 Basic Shielding Plug Hardware Kit**

- Kit contains connector, inner shield, outer shield
- Connector shells: steel, tin plated
- Connector insert: thermoplastic black, 94V-0 rated
- Shield: steel, tin plated
- Recommended cable insulation dia.: 0.165"-0.455"

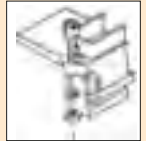


| Part No. | Product No. | Pos. | Max. Cable Dia. | 1      | 10     |
|----------|-------------|------|-----------------|--------|--------|
| 614416   | 747522-1♣   | 9    | 0.350"          | \$1.65 | \$1.38 |

**AMP Rear Panel Mount Jack Socket Assembly**

Install jack socket and attach lockwasher and nut.

- For use with 0.062" (1.57mm) thick panel.



| Part No. | Product No. | Description          | 1      | 10     |
|----------|-------------|----------------------|--------|--------|
| 620066   | 609-006-1♣  | Jack socket assembly | \$5.49 | \$4.97 |



Find additional AMP D-Sub Connectors and Accessories at [www.Jameco.com/Prod/DSUB](http://www.Jameco.com/Prod/DSUB)



JAMECO ValuePro

## D-Subminiature Connectors

Quantity SAVE

**EXCLUSIVE**

- Metal shells are tin-plated for improved EMI/RFI shielding
- Insulation resistance: minimum 1000MΩ at 500VDC
- Dielectric withstanding voltage: 1000V (one minute)

- Current rating: 1A to 5A
- High temperature thermoplastic
- Insulation material: PBT

JAMECO ValuePro

### Right Angle PC Mount



#### Metal .318" Set Back

- Short style
- Lead length: .138"
- Lead spacing: .115"
- Current rating: 1A



15150

| Part No. | Cross Ref. No. | Cont. | Gender | 1     | 10    | 100   | 500   |
|----------|----------------|-------|--------|-------|-------|-------|-------|
| 104943   | DB9P318R       | 9     | M      | \$.55 | \$.50 | \$.45 | \$.38 |
| 104952   | DB9S318R       | 9     | F      | \$.60 | \$.55 | \$.49 | \$.45 |
| 71125    | DA15P318R      | 15    | M      | \$.69 | \$.59 | \$.55 | \$.49 |
| 77956    | DA15S318R      | 15    | F      | \$.79 | \$.69 | \$.65 | \$.45 |
| 168743   | HDDB15S318R    | 15    | M      | \$.69 | \$.62 | \$.56 | \$.51 |
| 71466    | HDDB15S318R    | 15    | F      | \$.59 | \$.53 | \$.48 | \$.39 |
| 15150    | DB25P318R      | 25    | M      | \$.79 | \$.65 | \$.55 | \$.45 |
| 15182    | DB25S318R      | 25    | F      | \$.89 | \$.79 | \$.72 | \$.65 |
| 265439   | DSUB-25F       | 25    | F      | \$.94 | \$.84 | \$.67 | \$.51 |
| 71707    | DC37P318R      | 37    | M      | \$.99 | \$.89 | \$.80 | \$.66 |
| 78183    | DC37S318R      | 37    | F      | 1.15  | \$.95 | \$.69 | \$.49 |

\* High Density



#### Metal .590" Set Back

- Lead length: .178"
- Lead spacing: .104"
- Current rating: 1A
- Long style



104978

| Part No. | Cross Ref. No. | Cont. | Gender | 1     | 10    | 100   |
|----------|----------------|-------|--------|-------|-------|-------|
| 104969   | DB9P590R       | 9     | M      | \$.99 | \$.83 | \$.72 |
| 104978   | DB9S590R       | 9     | F      | \$.89 | \$.79 | \$.75 |
| 104993   | DA15S590R      | 15    | F      | 1.05  | \$.91 | \$.63 |
| 105006   | DB25P590R      | 25    | M      | \$.99 | \$.89 | \$.79 |
| 105013   | DB25S590R      | 25    | F      | 1.25  | 1.12  | \$.99 |

JAMECO ValuePro

### IDC Ribbon Cable

- Current rating: 1 amp
- Insulation material: glass-filled polyester
- Temperature range: -55°C to +120°C
- Contact material: phosphor bronze
- Terminates with standard D-type connectors
- Shell: MD: metal; CD: plastic (see cross ref. no.)



12432

\* Blue Part No. = Limited Quantity Available

| Part No. | Cross Ref. No. | Cont. | Gender | 1      | 10     | 100    |
|----------|----------------|-------|--------|--------|--------|--------|
| 109226   | MD9P9P         | 9     | M      | \$1.39 | \$1.29 | \$1.13 |
| 12503    | CDB9P          | 9     | M      | 2.49   | 1.79   | 1.59   |
| 109217   | MD9S9S         | 9     | F      | 1.55   | 1.23   | 1.08   |
| 12521    | CDB9S          | 9     | F      | 2.59   | 2.35   | 2.09   |
| 117381   | MDA15P         | 15    | M      | 1.65   | 1.32   | \$.73  |
| 12298    | CDA15P         | 15    | M      | 1.79   | 1.52   | 1.15   |
| 116011   | MDA15S         | 15    | F      | 1.55   | 1.25   | \$.85  |
| 12319    | CDA15S         | 15    | F      | 1.79   | 1.50   | \$.73  |
| 115983   | MDB25P         | 25    | M      | 2.05   | 1.83   | 1.54   |
| 12335    | CDB25P         | 25    | M      | 1.89   | 1.69   | 1.29   |
| 115976   | MDB25S         | 25    | F      | 2.05   | 1.83   | 1.54   |
| 12432    | CDB25S         | 25    | F      | 1.95   | 1.79   | 1.39   |
| 115992   | MDC37P         | 37    | M      | 2.39   | 2.15   | 1.55   |
| 12466    | CDC37P         | 37    | M      | 3.09   | 2.93   | 2.74   |
| 116003   | MDC37S         | 37    | F      | 3.25   | 2.94   | 2.65   |
| 12483    | CDC37S         | 37    | F      | 3.49   | 2.99   | 2.25   |

† Requires flat cable w/ .0625" centers

JAMECO ValuePro

### Crimp-Type Connectors & Pins

- Connectors: metal shell; removable male/female crimp pins
- Male/female pins: gold plated contact; tinned crimp tail
- Insertion/extraction tool: exchangeable tips
- Use 99443, pg 292 to crimp 43377, 43369



180890



38771



43369

\* Prepackaged: please order in increments of 10

| Part No. | Description                                 | 1     | 10    | 100   | 1000  |
|----------|---|-------|-------|-------|-------|
| 73189    | DB9 M housing                               | \$.49 | \$.39 | \$.31 | \$.19 |
| 73197    | DB9 F housing                               | \$.49 | \$.39 | \$.31 | \$.19 |
| 73201    | DA15 M housing                              | \$.59 | \$.53 | \$.48 | \$.43 |
| 73219    | DA15 F housing                              | \$.62 | \$.56 | \$.50 | \$.44 |
| 180882   | HDDB15 M housing                            | 1.09  | \$.98 | \$.78 | \$.58 |
| 180890   | HDDB15 F housing                            | \$.89 | \$.79 | \$.72 | \$.54 |
| 38789    | DB25 M housing                              | \$.56 | \$.44 | \$.36 | \$.21 |
| 38771    | DB25 F housing                              | \$.55 | \$.44 | \$.31 | \$.21 |
| 43377    | M crimp pin                                 | *     | .10   | .09   | .08   |
| 43369    | F crimp pin                                 | *     | .08   | .07   | .06   |
| 185421   | M crimp pin (180882)                        | *     | .055  | .045  | .04   |
| 185412   | F crimp pin (180890)                        | *     | .055  | .05   | .04   |
| 19094    | Insert/extract. tool for above pins (HT101) | 2.79  | 2.49  |       |       |

\* High Density

JAMECO ValuePro

### Metal Solder-Cup

- Compatible with 24 AWG communications pg 105, and 22 AWG solid cable, pg 103



203799

| Part No. | Contacts | Gender | 1     | 10    | 100   | 1000  |
|----------|----------|--------|-------|-------|-------|-------|
| 15748    | 9R       | M      | \$.56 | \$.44 | \$.36 | \$.24 |
| 15771    | 9        | F      | \$.59 | \$.49 | \$.44 | \$.31 |
| 15078    | 15HD     | M      | \$.69 | \$.59 | \$.49 | \$.31 |
| 164823   | 15HD     | F      | \$.79 | \$.69 | \$.59 | \$.39 |
| 15035    | 15       | M      | \$.55 | \$.49 | \$.42 | \$.29 |
| 15051    | 15       | F      | \$.59 | \$.49 | \$.39 | \$.24 |
| 15115    | 25       | M      | \$.99 | \$.89 | \$.79 | \$.71 |
| 15157    | 25       | F      | \$.89 | \$.80 | \$.69 | \$.61 |
| 203799   | 26HD     | M      | \$.65 | \$.58 | \$.52 | \$.49 |
| 203782   | 26HD     | F      | \$.75 | \$.68 | \$.61 | \$.58 |
| 15472    | 37       | M      | \$.99 | \$.85 | \$.79 | \$.49 |
| 15500    | 37       | F      | 1.19  | 1.05  | \$.85 | \$.49 |
| 15676    | 50       | M      | 1.65  | 1.49  | 1.35  | \$.99 |
| 15691    | 50       | F      | 1.79  | 1.39  | 1.32  | \$.99 |

### Other Manufacturers — Great Deals

|        |    |   |       |       |       |       |
|--------|----|---|-------|-------|-------|-------|
| 482687 | 25 | M | \$.80 | \$.72 | \$.62 | \$.45 |
| 482708 | 25 | F | \$.80 | \$.72 | \$.62 | \$.45 |
| 639630 | 37 | M | \$.89 | \$.80 | \$.71 | \$.49 |
| 482724 | 37 | F | \$.89 | \$.80 | \$.71 | \$.49 |
| 482732 | 50 | M | 1.49  | 1.34  | 1.21  | \$.89 |
| 482741 | 50 | F | 1.49  | 1.34  | 1.21  | \$.89 |

\* High Density

JAMECO ValuePro

### Metal Straight PC Mount

- Non-removable contacts
- Operating temperature: -65° to +250°F
- Current rating: 5A
- 125 Vrms

Quantity SAVE

| Part No. | Cross Ref. No. | Cont. | Gender | 1     | 10    | 100    |
|----------|----------------|-------|--------|-------|-------|--------|
| 111691   | DB9PPCB        | 9     | M      | \$.55 | \$.45 | \$.32  |
| 15781    | DB9SPCB        | 9     | F      | \$.55 | \$.45 | \$.32  |
| 176760   | DA15PPCB       | 15    | M      | \$.49 | \$.44 | \$.33  |
| 176751   | DA15SPCB       | 15    | F      | \$.49 | \$.42 | \$.315 |
| 15123    | DB25PPCB       | 25    | M      | \$.65 | \$.59 | \$.52  |
| 15165    | DB25SPCB       | 25    | F      | \$.74 | \$.67 | \$.39  |
| 180021   | DC37SPCB       | 37    | F      | \$.85 | \$.80 | \$.60  |

JAMECO ValuePro

## D-Sub Connector Hoods



15086

Plastic



25620

Metallized

- Use with D-sub solder cup and housing style connectors (hardware included)

D Series: plastic hood with strain relief (gray)

MD Series: metal coated plastic hood w/ strain relief

MH Series: die-cast metal hood with strain relief

\* Blue Part No. = Limited Quantity Available

| Part No. | Cross Ref. | Connector | 1     | 10    | 100   | 1000   |
|----------|------------|-----------|-------|-------|-------|--------|
| 15722    | DB9H       | 9-pin     | \$.49 | \$.45 | \$.39 | \$.35  |
| 25620    | MD9H       | 9-pin     | \$.59 | \$.49 | \$.39 | \$.35  |
| 147741   | MHDB9H     | 9-pin     | 1.45  | 1.29  | 1.15  | \$.99  |
| 15018    | DA15H      | 15-pin    | \$.49 | \$.45 | \$.40 | \$.35  |
| 25566    | MDA15H     | 15-pin    | \$.56 | \$.44 | \$.36 | \$.31  |
| 15086    | DB25H      | 25-pin    | \$.45 | \$.39 | \$.35 | \$.32  |
| 25603    | MDB25H     | 25-pin    | \$.59 | \$.49 | \$.42 | \$.35  |
| 15106    | MHDB25     | 25-pin    | 1.39  | 1.19  | 1.09  | 1.02   |
| 15457    | DC37H      | 37-pin    | \$.59 | \$.55 | \$.45 | \$.39  |
| 25611    | MDC37H     | 37-pin    | \$.75 | \$.69 | \$.59 | \$.443 |
| 15660    | DD50H      | 50-pin    | \$.99 | \$.85 | \$.75 | \$.65  |

JAMECO ValuePro

## 25-Pin Dual Plastic Hood

Designed for custom applications requiring two D-sub connectors. Applications include custom jumper boxes and interconnects.



| Part No. | Description          | 1     | 10    | 100   | 500   |
|----------|----------------------|-------|-------|-------|-------|
| 34091    | 25-pin, plastic dual | \$.95 | \$.85 | \$.75 | \$.59 |

## 4-40 Screw Hardware for D-Subminiature Connectors

4-40 x .187" Jack Screws and Standoffs



108986

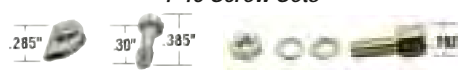
102795

125015

\* Minimum order 10 pieces

| Part No. | Description                            | 1     | 10     | 100    | 1000   |
|----------|--|-------|--------|--------|--------|
| 196293   | .252"L jack screw                      | \$.27 | \$.21  | \$.12  | \$.08  |
| 169931   | .275"L jack screw                      | *     | \$.15  | \$.12  | \$.084 |
| 172603   | .315"L jack screw                      | *     | \$.121 | \$.101 | \$.076 |
| 102816   | .435"L jack screw                      | \$.49 | \$.46  | \$.41  | \$.37  |
| 108986   | .515"L jack screw                      | \$.55 | \$.50  | \$.45  | \$.40  |
| 125015   | 4-40 x 1.65"L plastic beige thumbscrew | \$.39 | \$.35  | \$.32  | \$.25  |
| 175636   | .187"L standoff                        | \$.24 | \$.21  | \$.15  | \$.10  |
| 102795   | .236"L (6mm) stdf                      | \$.24 | \$.21  | \$.15  | \$.10  |

### 4-40 Screw Sets



102808

16548

- 102808: 4-40 screw (.385"L) and retainer set
- 16548: 4-40 x .187" jack screw (.31"L thread), washer, lock washer, and nut set

\* Prepackaged: please order in increments of 10

| Part No. | Description        | 10    | 100   | 1000  |
|----------|--------------------|-------|-------|-------|
| 102808   | Screw/retainer set | \$.39 | \$.35 | \$.30 |
| 16548    | Screw/nut set      | \$.31 | \$.25 | \$.17 |

## Cinch

### D-Sub Metal Shells

- Insulator material: glass filled polyester (black) UL94V-0 rated
- Insulation resistance: 5000MΩ max. (initial)

- Current: 5A
- Durability: 500 mating cycles

#### DxKL Series



- Contact material: socket – phosphor bronze (stamped); plugs – brass (stamped)
- Contact plating: gold flash, tin/lead on tails over nickel
- Metal shell: steel w/ tin plating (grounding indents on plugs)
- Contact resistance: 15mΩ max.

#### Right Angle

- 0.318" foot print
- Boardlock: brass w/ tin plating
- Female screwlocks: brass w/ nickel plating
- Withstanding voltage: 1250Vrms

#### With 4-40 threaded inserts

| Part No. | Product No.    | Positions | Gender | 1            | 25     |
|----------|----------------|-----------|--------|--------------|--------|
| 446547   | DAKL-9PATI-E♣  | 9         | M      | ..... \$ .79 | \$ .73 |
| 446571   | DAKL-15PATI-E♣ | 15        | M      | ..... 1.05   | .91    |
| 458046   | DAKL-15SAT-E♣  | 15        | F      | ..... 1.05   | .91    |
| 446483   | DBKL-25SAT-E   | 25        | F      | ..... 1.05   | .96    |

#### Sockets w/ female screwlocks

| Part No. | Product No.   | Positions | 1            | 25      |
|----------|---------------|-----------|--------------|---------|
| 446475   | DBKL-25SAT-F♣ | 25        | ..... \$ .59 | \$ .541 |

#### Vertical PCB

- Straight DIP solder tails
- 0.024" contact diameter
- Withstanding voltage: 1000Vrms

| Part No. | Product No.  | Positions | Gender | 1            | 25      |
|----------|--------------|-----------|--------|--------------|---------|
| 458097   | DEKL-9PUTI♣  | 9         | M      | ..... \$ .49 | \$ .437 |
| 458100   | DEKL-9SUT♣   | 9         | F      | ..... .77    | .68     |
| 458054   | DAKL-15PUTI♣ | 15        | M      | ..... .92    | .81     |
| 458062   | DAKL-15SUT♣  | 15        | F      | ..... .94    | .83     |
| 458071   | DBKL-25PUTI♣ | 25        | M      | ..... .76    | .69     |
| 458089   | DBKL-25SUT♣  | 25        | F      | ..... .91    | .76     |

## Cinch D-Sub Solder Cup IDC Connectors

#### Tx Series Plastic IDC for Discrete Cable Wire

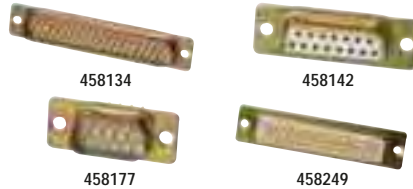
- Current: 3A
- Insulator material: glass filled polyester (black) UL94V-0 rated
- Shell: steel with zinc plating, yellow chromate finish or tin plating (ground indents on plugs)
- Contact material: phosphor bronze (stamped)
- Contact plating: gold flash or 30µ" gold in mating area, gold flash over nickel
- Withstanding voltage: 1000Vrms min
- Contact resistance: 2.7mΩ max.
- Insulation resistance: 5000MΩ max. (initial)
- Durability: 500 mating cycles
- For use with SDH series gray backshell



#### Plain flange, w/ mounting holes

| Part No. | Product No. | Positions | Gender | 1            | 25     |
|----------|-------------|-----------|--------|--------------|--------|
| 458003   | TE9P♣       | 9         | M      | ..... \$2.75 | \$2.05 |
| 457991   | TB-25S♣     | 25        | F      | ..... 4.85   | 3.61   |
| 458011   | TC-37P♣     | 37        | M      | ..... 4.39   | 4.13   |

#### D Series



- Connector shell: steel w/ zinc plating, yellow chromate finish or tin plating (grounding indents on plugs)
- 4-40 clinch nut: steel w/ cadmium plating & yellow chromate finish
- Contact material: copper alloy
- Dual float bushing: stainless steel, passivated
- Withstanding voltage: 1250Vrms
- Contact resistance: 2.7mΩ max.
- Contact plating: stamped contacts – gold flash

#### With mounting holes

| Part No. | Product No. | Positions | Gender | 1            | 25     |
|----------|-------------|-----------|--------|--------------|--------|
| 457959   | DE-9P♣      | 9         | M      | ..... \$1.95 | \$1.70 |
| 458169   | DE-9S♣      | 9         | F      | ..... 2.35   | 2.07   |
| 458118   | DA-15P♣     | 15        | M      | ..... 3.39   | 2.98   |
| 458142   | DA-15S♣     | 15        | F      | ..... 2.39   | 2.10   |
| 458126   | DB-25P      | 25        | M      | ..... 2.05   | 1.95   |
| 458151   | DB-25S      | 25        | F      | ..... 3.19   | 2.83   |
| 458134   | DC-37P♣     | 37        | M      | ..... 3.89   | 3.66   |
| 457967   | DC-37S♣     | 37        | F      | ..... 6.49   | 6.05   |
| 457975   | DD-50P♣     | 50        | M      | ..... 6.29   | 5.62   |
| 458038   | DD-50S♣     | 50        | F      | ..... 21.39  | 19.16  |

#### Wire Wrap, 0.375"L tail, w/ mounting holes

| Part No. | Product No.  | Positions | Gender | 1            | 25     |
|----------|--------------|-----------|--------|--------------|--------|
| 458257   | DE-9P-F179♣  | 9         | M      | ..... \$3.19 | \$2.79 |
| 458265   | DE-9S-F179♣  | 9         | F      | ..... 4.95   | 4.49   |
| 458177   | DA-15P-F179♣ | 15        | M      | ..... 3.75   | 3.54   |
| 458185   | DA-15S-F179♣ | 15        | F      | ..... 6.55   | 6.35   |
| 458193   | DB-25P-F179♣ | 25        | M      | ..... 5.29   | 5.02   |
| 458206   | DB-25S-F179♣ | 25        | F      | ..... 7.99   | 7.56   |
| 458214   | DC-37P-F179♣ | 37        | M      | ..... 7.35   | 6.97   |
| 458222   | DC-37S-F179♣ | 37        | F      | ..... 11.49  | 10.77  |
| 458249   | DD-50S-F179♣ | 50        | F      | ..... 15.15  | 14.39  |

#### Wire Wrap, 0.585"L tail, w/ mounting holes

| Part No. | Product No.      | Positions | Gender | 1            | 25     |
|----------|------------------|-----------|--------|--------------|--------|
| 458020   | DB-25PTII-F179C♣ | 25        | M      | ..... \$5.49 | \$5.20 |

## Cinch D-Sub Plastic Hoods

- Shell material: phenolic hood—phenolic black; all plastic straight (180°) hood—nylon, gray; all plastic right angle (90°) hood—nylon, gray
- #4-40 screws: steel w/ nickel plating



| Part No. | Product No.  | Std. Density | Description   | 1          | 25     |
|----------|--------------|--------------|---------------|------------|--------|
| 446686   | DE-51218-1♣  | 9            | Straight ...  | \$2.99     | \$2.78 |
| 446694   | DA-51210-1♣  | 15           | Straight      | ..... 3.69 | 3.45   |
| 446707   | DB-51212-1♣  | 25           | Straight      | ..... 3.45 | 3.17   |
| 446715   | DB-51213-1B♣ | 25           | Rt. angle ... | 2.85       | 2.69   |
| 446678   | DB-51226-1A♣ | 25           | Straight      | ..... 2.89 | 2.17   |

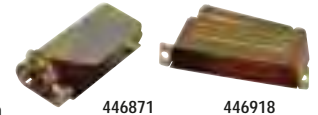
If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 322.

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

## Cinch

### Metal D-Sub Junction Shells

- Shell material: zinc plated low carbon steel with yellow chromate finish
- Clamp & screw: zinc plated steel with yellow chromate finish
- Stop nut: zinc plated brass w/ yellow chromate finish



#### Right Angle Clamp

| Part No. | Product No. | Shell Size | Std. Density | 1            | 25     |
|----------|-------------|------------|--------------|--------------|--------|
| 446889   | DE-19977-5♣ | E          | 9            | ..... \$3.55 | \$3.27 |
| 446862   | DA-19977-1♣ | A          | 15           | ..... 3.09   | 2.88   |
| 446871   | DB-19977-2  | B          | 25           | ..... 3.49   | 3.25   |

#### Straight Clamp

| Part No. | Product No. | Shell Size | Std. Density | 1            | 25     |
|----------|-------------|------------|--------------|--------------|--------|
| 446934   | DE-24567♣   | E          | 9            | ..... \$4.19 | \$3.84 |
| 446926   | DA-24658♣   | A          | 15           | ..... 3.35   | 3.06   |
| 446660   | DB-19678-2♣ | B          | 25           | ..... 2.65   | 2.04   |
| 446900   | DB-24659♣   | B          | 25           | ..... 2.75   | 2.50   |
| 446651   | DC-19678-3♣ | C          | 37           | ..... 2.89   | 2.75   |
| 446918   | DC-24660♣   | C          | 37           | ..... 2.85   | 2.62   |
| 446897   | DD-24661♣   | D          | 50           | ..... 3.65   | 3.44   |

## Cinch D-Sub Backshells

- Fits standard metal shell D-sub plugs & sockets as well as HTD series 1.5 D-Subs
- #4-40 screws, hex-nut, mounting bracket: steel w/ zinc plating and clear chromate plating
- Standard backshells: plastic backshells, ABS black, hardware – steel with zinc plating, grommets – polyphenylene, black
- Metallized plastic backshells: ABS w/ nickel over copper plating, hardware – steel w/ zinc plating, grommets – PVC black
- Diecast backshells: diecast zinc; grommets: PVC black



#### Metallized Plastic Straight (180°) Cable Entry

| Part No. | Product No. | Std. Density | Cable Dia.   | 1      | 25     |
|----------|-------------|--------------|--------------|--------|--------|
| 446766   | DHC-E-001♣  | 9            | .21"-.35" .. | \$3.09 | \$2.68 |
| 446774   | DHC-A-001♣  | 15           | .21"-.35" .. | 2.25   | 2.09   |
| 446782   | DHC-B-001♣  | 25           | .21"-.35" .. | 3.25   | 2.94   |
| 446791   | DHC-C-001♣  | 37           | .23"-.45" .. | 3.39   | 3.15   |
| 446803   | DHC-D-001♣  | 50           | .35"-.64" .. | 5.95   | 4.43   |

#### Diecast Metal Straight (180°) Cable Entry

| Part No. | Product No. | Std. Density | Cable Dia.   | 1      | 25     |
|----------|-------------|--------------|--------------|--------|--------|
| 446811   | DMH-E-001♣  | 9            | .21"-.32" .. | \$3.55 | \$3.33 |
| 446820   | DMH-A-001♣  | 15           | .21"-.32" .. | 4.65   | 4.01   |
| 446838   | DMH-B-001♣  | 25           | .23"-.45" .. | 4.35   | 4.08   |
| 446846   | DMH-C-001♣  | 37           | .35"-.65" .. | 6.09   | 5.32   |
| 446854   | DMH-D-001♣  | 50           | .35"-.64" .. | 4.75   | 4.48   |

#### Plastic Straight (180°) Cable Entry

| Part No. | Product No. | Std. Density | Cable Dia.   | 1      | 25     |
|----------|-------------|--------------|--------------|--------|--------|
| 446723   | DPH-E-001♣  | 9            | .21"-.32" .. | \$1.65 | \$1.52 |
| 446731   | DPH-A-001♣  | 15           | .21"-.32" .. | 1.55   | 1.40   |
| 446740   | DPH-B-001♣  | 25           | .23"-.45" .. | 1.95   | 1.79   |
| 446758   | DPH-C-001♣  | 37           | .35"-.65" .. | 1.99   | 1.91   |

## Cinch

### Super D System D-Sub Backshells



#### SDH Series For Metal Shell Connectors

- Cinch Super D interconnection system is a simple, fast, economical, and reliable for mating connectors from cable-to-cable or cable-to-panel
- Snap on plastic hoods captivate connectors providing positive self-latching, audible mating w/ reliable retention & Latch-N-Lok™ quick release disconnect
- For any standard shell IDC, solder cup, crimp & poke type D-Sub connectors
- Includes stay band to strain relief cable wire
- Hood: modified phenylene oxide (black for metal, gray for plastic)
- Screws: for latching blocks: steel w/ nickel plating
- Stay band: steel w/ zinc plating & clear chromate

#### Straight (180°) Cable Entry (Black)

##### Filler Ends, Standard Cable Opening

| Part No. | Product No. | Positions | 1      | 25     |
|----------|-------------|-----------|--------|--------|
| 447056   | SDH-9BF♣    | 9         | \$2.09 | \$1.54 |
| 447064   | SDH-15BF♣   | 15        | 1.25   | 1.15   |

##### Filler Ends w/ 4-40 Screws, Standard Cable Opening

| Part No. | Product No. | Positions | 1      | 25     |
|----------|-------------|-----------|--------|--------|
| 447030   | SDH-9BFCS♣  | 9         | \$2.09 | \$1.54 |
| 447048   | SDH-15BFCS♣ | 15        | 2.09   | 1.87   |

##### Latches, Standard Cable Opening

| Part No. | Product No. | Positions | 1      | 25     |
|----------|-------------|-----------|--------|--------|
| 446951   | SDH-9BL♣    | 9         | \$1.31 | \$1.19 |
| 446969   | SDH-15BL♣   | 15        | 2.55   | 1.91   |
| 446977   | SDH-25BL♣   | 25        | 1.59   | 1.43   |
| 446985   | SDH-37BL♣   | 37        | 1.59   | 1.44   |

##### Latches, Large Cable Opening

| Part No. | Product No. | Positions | 1      | 25     |
|----------|-------------|-----------|--------|--------|
| 446993   | SDH-25BLL♣  | 25        | \$3.55 | \$3.36 |

#### Right Angle (90°) Cable Entry (Black)

##### Latches, Standard Cable Opening

| Part No. | Product No. | Positions | 1      | 25     |
|----------|-------------|-----------|--------|--------|
| 447005   | SDH-9RBL♣   | 9         | \$3.99 | \$3.75 |
| 447013   | SDH-25RBL♣  | 25        | 3.45   | 3.25   |

##### Latches, Large Cable Opening

| Part No. | Product No. | Positions | 1      | 25     |
|----------|-------------|-----------|--------|--------|
| 447021   | SDH-25RBLL♣ | 25        | \$3.75 | \$3.53 |

#### SDH Series For Plastic Connectors (Gray)

- Fits only T-series all plastic IDC connectors
- Straight (180°) Cable Entry (grey) Backshell for Plastic Connectors

##### Latches, Standard Cable Opening

| Part No. | Product No. | Positions | 1      | 25     |
|----------|-------------|-----------|--------|--------|
| 446942   | SDH-9GL♣    | 9         | \$1.79 | \$1.71 |

#### Latching Blocks for Super D Adapter System

- 444867: Latching block w/ SEM screw (0.060" – 0.080" panel thickness)
- 444875: Latching block w/ SEM screw (0.080" – 0.125" panel thickness)

| Part No. | Product No.    | 1      | 25      |
|----------|----------------|--------|---------|
| 448593   | SD-LB♣         | \$ .59 | \$ .545 |
| 444867   | SD-LB-060-080♣ | 1.44   | 1.32    |
| 444875   | SD-LB-125♣     | 1.45   | 1.33    |

## Cinch

### Male Screwlocks

- For junction shells and standard backshells
- Length: 0.250" (444541: per mil spec)

| Part No. | Product No.   | For use with   | 1      | 25      |
|----------|---------------|--|--------|---------|
| 444592   | D20419-0♣     | Standard backshell plug 9/15; socket 9/15/25/37                  | \$ .40 | \$ .359 |
| 444605   | D24019-16♣    | Junction shell socket 9/15/25/37 & standard backshell plug 25/37 | .55    | .492    |
| 444621   | D20420-0♣     | Standard shell 50  | .49    | .443    |
| 444541   | M24308/25-9F♣ | Standard backshell plug/socket 9/15/25/37                        | 3.79   | 3.60    |

### Female Screwlocks

- Military MIL-C-24308

- Length: per mil spec

| Part No. | Product No.   | For use with                                 | 1      | 25     |
|----------|---------------|--|--------|--------|
| 444955   | M24308/26-1F♣ | Standard backshell plug/socket 9/15/25/37/50 | \$ .59 | \$ .55 |
| 444939   | M24308/26-2F♣ | Standard backshell plug/socket 9/15/25/37/50 | .85    | .79    |

## Cinch

### D-Sub Dust Caps

#### Dust Caps

- For use with Cinch D-Sub connectors
- Protects connector contacts when not mated
- Material: polyethylene, black



448374  
Lower \$\$\$

| Part No. | Product No. | Std. Density | Gender      | 1      | 25     |
|----------|-------------|--------------|-------------|--------|--------|
| 448411   | DE-59-20♣   | 9            | Socket ..   | \$1.15 | \$1.10 |
| 448403   | DE-60-20♣   | 9            | Plug .....  | 1.38   | 1.25   |
| 448420   | DA-59-20♣   | 15           | Socket .... | 1.37   | 1.25   |
| 448374   | DA-60-20♣   | 15           | Plug .....  | 1.37   | 1.25   |
| 448391   | DB-59-20♣   | 25           | Socket .... | 1.34   | 1.22   |
| 448382   | DB-60-20♣   | 25           | Plug .....  | .89    | .85    |
| 448585   | DD-60-20♣   | 50           | Plug .....  | 1.35   | 1.25   |

## Cinch

### D-Sub Slidelock Assemblies

- Compatible w/ all Cinch backshell, hoods, & junction shells (except DxH/SHD/Phenolic Hood series)
- Compatible w/ all Cinch metal shell D-Sub connectors
- Slidelock plate: stainless steel, passivated
- Slidelock hex nut, washer, & 4-40 screw: steel w/ zinc plating, yellow chromate finish
- Lockstop, washer, lockwasher, & hex nut: steel w/ zinc plating, yellow chromate finish
- 444921: Standard density: requires two on each slide lock assembly



444568

Lower \$\$\$

#### Lock Retainers

| Part No. | Product No. | Std. Density | Pins  | 1      | 25     |
|----------|-------------|--------------|-------|--------|--------|
| 444584   | DE-51224-1♣ | 9            | ..... | \$1.65 | \$1.42 |
| 444568   | DA-51220-1♣ | 15           | ..... | 1.25   | 1.16   |
| 444576   | DB-51221-1♣ | 25           | ..... | 1.27   | 1.19   |
| 444963   | DD-51223-1♣ | 50           | ..... | .99    | .91    |
| 444921   | D53018♣     | —            | ..... | .47    | .424   |

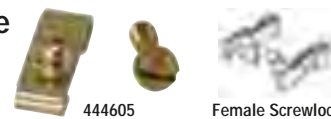
## Commercial Customers



Open an account  
with us to consolidate  
your monthly billing  
and to save time.

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

## D-Sub Hardware



444605

Female Screwlocks



### .049" (1.25mm) Shrouded Vertical Headers

#### 53047 Series Value Equivalence

- Wire to board
- Blade pin
- Friction lock
- Current rating: 1A
- Voltage rating: 125V
- UL94V-0 rated
- Withstanding voltage: 250VAC/1 min.
- Contact resistance: 20mΩ max.
- Insulation resistance: 100MΩ min.
- Housing material: PA polyimide (Nylon) 6/6
- Contact material: phosphor bronze
- Contact and tail plating: tin



420363

| Part No. | Cross Ref. No. | Circuits | 1          | 10      | 100     |
|----------|----------------|----------|------------|---------|---------|
| 420339   | 53047-0210♣    | 2        | ... \$ .33 | \$ .268 | \$ .192 |
| 420347   | 53047-0310♣    | 3        | ... .37    | .325    | .235    |
| 420355   | 53047-0410♣    | 4        | ... .47    | .388    | .28     |
| 420363   | 53047-0510♣    | 5        | ... .57    | .474    | .336    |
| 420371   | 53047-0610♣    | 6        | ... .65    | .511    | .369    |
| 420380   | 53047-0710♣    | 7        | ... .67    | .60     | .43     |
| 420398   | 53047-0810♣    | 8        | ... .72    | .63     | .456    |
| 420401   | 53047-0910♣    | 9        | ... .80    | .70     | .501    |
| 420419   | 53047-1010♣    | 10       | ... .88    | .76     | .547    |



### .049" (1.25mm) Shrouded Right Angle Headers

#### 53048 Series Value Equivalence

- Wire to Board
- Blade pin
- Friction lock
- Current rating: 1A
- Voltage rating: 125V
- UL94V-0 rated
- Withstanding voltage: 250VAC/1 min.
- Contact resistance: 20mΩ max.
- Insulation resistance: 100MΩ min.
- Housing material: PA polyimide (Nylon) 6/6
- Contact material: phosphor bronze
- Contact plating: tin
- Pin size: blade



420460

| Part No. | Cross Ref. No. | Circuits | 1          | 10      | 100     |
|----------|----------------|----------|------------|---------|---------|
| 420427   | 53048-0210♣    | 2        | ... \$ .35 | \$ .314 | \$ .216 |
| 420435   | 53048-0310♣    | 3        | ... .43    | .383    | .264    |
| 420443   | 53048-0410♣    | 4        | ... .50    | .433    | .313    |
| 420451   | 53048-0510♣    | 5        | ... .59    | .545    | .392    |
| 420460   | 53048-0610♣    | 6        | ... .64    | .56     | .403    |
| 420478   | 53048-0710♣    | 7        | ... .63    | .54     | .391    |
| 420486   | 53048-0810♣    | 8        | ... .79    | .68     | .493    |
| 420494   | 53048-0910♣    | 9        | ... .88    | .75     | .539    |
| 420507   | 53048-1010♣    | 10       | ... .98    | .94     | .63     |

Each warehouse will accrue separate shipping charges.



## .049" (1.25mm) Pitch Housing

### 51021 Series Value Equivalence

- Wire to board or wire to wire
- UL94V-0 rated
- Current rating: 1A
- Voltage rating: 125V
- Contact resistance: 20mΩ
- Insulation resistance: 100MΩ min.
- Housing material: PBT polyester
- Dielectric withstanding voltage: 250VAC/1 min.



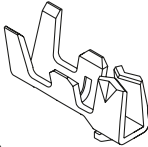
420321

| Part No. | Cross Ref. No. | Circuits | 1       | 10     | 100    |
|----------|----------------|----------|---------|--------|--------|
| 420241   | 51021-0200     | 2        | ... .23 | \$.178 | \$.123 |
| 420259   | 51021-0300     | 3        | ... .23 | .217   | .157   |
| 420267   | 51021-0400     | 4        | ... .25 | .233   | .168   |
| 420275   | 51021-0500     | 5        | ... .29 | .26    | .216   |
| 420283   | 51021-0600     | 6        | ... .32 | .268   | .21    |
| 420291   | 51021-0700     | 7        | ... .36 | .308   | .244   |
| 420304   | 51021-0800     | 8        | ... .39 | .34    | .254   |
| 420312   | 51021-0900     | 9        | ... .42 | .363   | .296   |
| 420321   | 51021-1000     | 10       | ... .45 | .387   | .304   |

## .049" (1.25mm) Pitch Crimp Terminals

### For 51021 Series Value Equivalence

- Female crimp pins
- 668457: 26-28AWG;
- 668473: 28-32AWG
- Contact material: phosphor bronze
- Pre-plated
- Plating contact: 0.9μm (35μ") tin



| Part No. | Product No. | 1       | 10     | 100    | 500   |
|----------|-------------|---------|--------|--------|-------|
| 668457   | 50079-8100  | ... .20 | \$.113 | \$.107 | \$.10 |
| 668473   | 50058-8100  | ... .20 | .113   | .107   | .10   |

## .079" (2.0mm) Dual Row Vertical Headers

### 87758 Series Value Equivalence

- Wire to board or wire to wire
- UL94V-0 rated
- Current rating: 1A
- Voltage rating: 125V
- Contact resistance: 20mΩ
- Insulation resistance: 100MΩ min.
- Housing material: PBT polyester
- Dielectric withstanding voltage: 250VAC/1 min.



378581

| Part No. | Cross Ref. No. | Circuits | 1        | 10     | 100   |
|----------|----------------|----------|----------|--------|-------|
| 378521   | 87758-0416     | 4        | ... .35  | \$.292 | \$.24 |
| 378530   | 87758-0616     | 6        | ... .67  | .57    | .418  |
| 378548   | 87758-0816     | 8        | ... .68  | .57    | .464  |
| 378556   | 87758-1016     | 10       | ... .58  | .489   | .40   |
| 378564   | 87758-1216     | 12       | ... .72  | .61    | .496  |
| 378572   | 87758-1416     | 14       | ... .75  | .63    | .512  |
| 378581   | 87758-1616     | 16       | ... .78  | .66    | .528  |
| 378599   | 87758-1816     | 18       | ... .89  | .74    | .60   |
| 378601   | 87758-2016     | 20       | ... 1.15 | .96    | .78   |
| 378610   | 87758-2216     | 22       | ... 1.16 | .98    | .79   |
| 378628   | 87758-2416     | 24       | ... 1.19 | 1.00   | .81   |
| 378636   | 87758-2616     | 26       | ... 1.39 | 1.18   | .96   |
| 378652   | 87758-3016     | 30       | ... 1.49 | 1.26   | 1.02  |
| 378708   | 87758-4016     | 40       | ... 1.89 | 1.60   | 1.30  |
| 378724   | 87758-4416     | 44       | ... 2.09 | 1.76   | 1.42  |
| 378759   | 87758-5016     | 50       | ... 2.09 | 1.80   | 1.46  |

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

## .079" (2.0mm) Pitch Milli-Grid Right Angle Headers

### 87760 Series Value Equivalence

- Current rating: 2A
- Voltage rating: 125V
- Under plating: nickel
- UL94V-0 rated
- Withstanding voltage: 500VAC
- Contact Resistance: 25mΩ max.
- Insulation resistance: 1000MΩ
- Housing material: PCT Polyester, glass filled
- Contact: Phosphor bronze
- Contact plating: 0.38μm (15μ") gold selective
- Plating tail: 1.9μm (75μ") tin
- Pin size: 0.50mm (0.20") square



378804



| Part No. | Cross Ref. No. | Circuits | 1        | 10     | 100    |
|----------|----------------|----------|----------|--------|--------|
| 378775   | 87760-0616     | 6        | ... .46  | \$.435 | \$.343 |
| 378783   | 87760-0816     | 8        | ... .49  | .418   | .336   |
| 378804   | 87760-1216     | 12       | ... .72  | .61    | .496   |
| 378812   | 87760-1416     | 14       | ... .76  | .64    | .52    |
| 378821   | 87760-1616     | 16       | ... 1.06 | .90    | .72    |
| 378839   | 87760-1816     | 18       | ... .91  | .79    | .62    |
| 378847   | 87760-2016     | 20       | ... .91  | .79    | .62    |

## .079" (2.0mm) Pitch Milli-Grid Housing

### 51110 Series Value Equivalence

- Housing: polyester, glass filled
- Temperature: -55°C to +105°C
- Vertical wire entry angle
- Dual row



377991

### w/o Polarizing Key

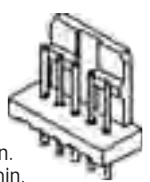
| Part No. | Cross Ref. No. | Circuits | 1       | 10     | 100    |
|----------|----------------|----------|---------|--------|--------|
| 377975   | 51110-0450     | 4        | ... .25 | \$.158 | \$.128 |
| 377983   | 51110-0650     | 6        | ... .26 | .166   | .16    |
| 377991   | 51110-0850     | 8        | ... .27 | .173   | .143   |
| 378003   | 51110-1050     | 10       | ... .29 | .19    | .152   |
| 378011   | 51110-1250     | 12       | ... .31 | .197   | .184   |
| 378020   | 51110-1450     | 14       | ... .36 | .284   | .256   |
| 378038   | 51110-1650     | 16       | ... .44 | .276   | .224   |
| 378046   | 51110-1850     | 18       | ... .47 | .30    | .24    |
| 378054   | 51110-2050     | 20       | ... .52 | .331   | .272   |
| 378062   | 51110-2250     | 22       | ... .68 | .61    | .408   |
| 378071   | 51110-2450     | 24       | ... .63 | .402   | .32    |
| 378089   | 51110-2650     | 26       | ... .68 | .426   | .40    |
| 378097   | 51110-2850     | 28       | ... .75 | .466   | .376   |
| 378100   | 51110-3050     | 30       | ... .79 | .497   | .40    |

### w/ Polarizing Key

| Part No. | Cross Ref. No. | Circuits | 1       | 10     | 100    |
|----------|----------------|----------|---------|--------|--------|
| 378142   | 51110-0851     | 8        | ... .28 | \$.173 | \$.144 |
| 378151   | 51110-1051     | 10       | ... .30 | .189   | .152   |
| 378169   | 51110-1251     | 12       | ... .31 | .197   | .16    |
| 378177   | 51110-1451     | 14       | ... .37 | .229   | .184   |
| 378185   | 51110-0851     | 16       | ... .44 | .276   | .224   |
| 378193   | 51110-1051     | 18       | ... .57 | .505   | .344   |
| 378206   | 51110-0851     | 20       | ... .63 | .55    | .376   |
| 378214   | 51110-0851     | 22       | ... .68 | .61    | .408   |
| 378222   | 51110-0851     | 24       | ... .74 | .66    | .44    |
| 378231   | 51110-0851     | 26       | ... .75 | .71    | .522   |
| 378249   | 51110-0851     | 28       | ... .77 | .466   | .376   |
| 378257   | 51110-0851     | 30       | ... .90 | .529   | .352   |

## .079" (2.00mm) Pitch Micro SPOX™ Headers

- Wire to Board
- Single row
- Current: 1A
- UL94V-0 Rated
- Voltage rating: 125V
- Contact resistance: 20mΩ max.
- Insulation resistance: 1000MΩ min.
- Withstanding voltage: 500VAC/1 min.
- Housing: PA Polyamide (nylon) 6/6
- Contact: brass, tin plated, copper underplating



### Vertical with Friction Lock

| Part No. | Product No. | Positions | 1       | 10     | 100    |
|----------|-------------|-----------|---------|--------|--------|
| 520786   | 10-32-1023  | 2         | ... .33 | \$.297 | \$.271 |
| 520858   | 10-32-1033  | 3         | ... .36 | .345   | .328   |
| 520866   | 10-32-1043  | 4         | ... .43 | .405   | .385   |
| 520882   | 10-32-1063  | 6         | ... .56 | .534   | .508   |
| 520891   | 10-32-1073  | 7         | ... .62 | .59    | .56    |

## .079" (2.00mm) Pitch Milli-Grid™ Crimp Terminal

### For 51110 Series Value Equivalence

- Female crimp pin
- Lead free
- 24-30AWG
- Contact material: phosphor bronze
- Plating contact: 0.38μm (15μ") gold
- Under plating: nickel



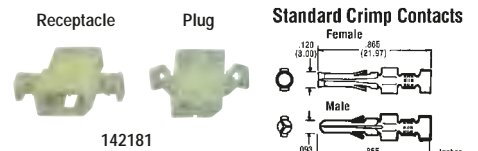
| Part No. | Product No. | 1       | 10     | 100    | 500    |
|----------|-------------|---------|--------|--------|--------|
| 668465   | 50394-8100  | ... .20 | \$.103 | \$.095 | \$.086 |

## .093" Power Connector Kits

These assortment kits contain mating sets of housings and pins.

- Voltage: 250VAC
- Temperature range: -40°C to +105°C
- 142181: • 3 ea. 2-pin plugs & receptacles, 8 ea. female & male contacts • Current: 12A
- 142201: • 2 ea. 4-pin plugs & receptacles, 10 ea. female & male contacts • Current: 9A

Includes: Male and female tin-plated standard brass .010" pins; 18-22 AWG crimp size wire



| Part No. | Product No. | Description | 1      | 10     | 50     |
|----------|-------------|-------------|--------|--------|--------|
| 142181   | 1545        | 2-pin kit   | \$4.95 | \$4.49 | \$3.95 |
| 142201   | 1490        | 4-pin kit   | 5.69   | 5.15   | 4.65   |

## Jameco's Got the Docs

We offer free technical documents for most of the products we carry.

Find them easily on the product specification pages at

[www.Jameco.com](http://www.Jameco.com).



## .062" (1.57mm) & .093" (2.36mm) Contacts

- Contact: brass or phosphor bronze
- Temp. range: -40°C to +105°C
- Tin plating
- Prepackaged: please order in increments of 10

### Crimp-Type Contacts



Male

Female

### .062" (1.57mm)

| Part No. | Product No. | Gender | AWG   | 10    | 100    | 1000   |
|----------|-------------|--------|-------|-------|--------|--------|
| 224565   | 02-06-2103  | M      | 18-24 | \$.18 | \$.057 | \$.038 |
| 224581   | 02-06-2132  | M      | 24-30 | .18   | .057   | .038   |
| 224557   | 02-06-1103  | F      | 18-24 | .18   | .057   | .038   |
| 224573   | 02-06-1132  | F      | 24-30 | .18   | .057   | .038   |

### .093" (2.36mm)

| Part No. | Product No. | Gender | AWG   | 10    | 100   | 1000  |
|----------|-------------|--------|-------|-------|-------|-------|
| 224207   | 02-09-2118  | M      | 18-22 | \$.19 | \$.06 | \$.04 |
| 224223   | 02-09-2103  | M      | 14-20 | .18   | .059  | .04   |
| 224215   | 02-09-1119  | F      | 18-22 | .20   | .07   | .04   |
| 224231   | 02-09-1104  | F      | 14-20 | .18   | .059  | .042  |

### Solder-Tail Contacts



Male

Female

### .093" (2.36mm)

| Part No. | Product No. | Gender | 10    | 100    | 1000   |
|----------|-------------|--------|-------|--------|--------|
| 224240   | 02-09-2133  | Male   | \$.09 | \$.081 | \$.073 |
| 224258   | 02-09-1134  | Female | .20   | .14    | .09    |

To Find Additional Products In This Series, Visit [www.Jameco.com/Prod/Molex093](http://www.Jameco.com/Prod/Molex093)

## Connector Extraction Tools



142156/  
142236  
For .093"  
Connectors

227467/  
227395  
For .062"  
Connectors

236128  
For .100" KK Series  
Connectors

234940  
For .100" KK Series  
Connectors

| Part No. | Product No. | AWG   | 1       | 10      |
|----------|-------------|-------|---------|---------|
| 142156   | W-HT-2285   | 18-30 | \$14.49 | \$13.49 |
| 227467   | W-HT-2023   | 18-30 | 11.99   | 10.99   |
| 142236   | W-HT-2038   | 14-30 | 14.49   | 13.49   |
| 227395   | W-HT-2054   | 14-30 | 11.99   | 10.99   |
| 236128   | W-HT-1884   | 22-30 | 9.99    | 8.99    |
| 234940   | 11-03-0022  | 22-30 | 14.99   | 12.99   |

## Hand Crimp Tools

These tools are designed to crimp terminals, strip and cut wires, and cut bolts. For Molex crimp pin terminals with .062" & .093" diameters and KK® series on page 129.



308030

227491

308030: Cuts & strips 14-24 AWG wires  
227491: Cuts & strips 18-30 AWG wires

| Part No. | Product No. | Length | Color  | 1       | 5       |
|----------|-------------|--------|--------|---------|---------|
| 308030   | W-HT-1919   | 8.3"L  | Red    | \$14.99 | \$13.99 |
| 227491   | W-HT-1921   | 8.3"L  | Yellow | 14.99   | 13.99   |

## .062" (1.57mm) Power Connectors

- Passive friction lock
- Voltage: 250V
- Polarized housing assures proper mating
- Dielectric withstanding voltage: 1500VAC<sub>RMS</sub>
- Contact retention to housing: 20 lbs. minimum
- Temp. range: -40°C to +105°C
- Housing: nylon; UL94V-2
- Current: 5.0A

### Plugs

Quantity SAVE



224485



224522



230084

### Without Mounting Ears

| Part No. | Product No. | Circuits | 1     | 10    | 100   |
|----------|-------------|----------|-------|-------|-------|
| 224485   | 03-06-2023  | 2        | \$.30 | \$.18 | \$.15 |
| 224493   | 03-06-2032  | 3        | .31   | .19   | .16   |
| 224506   | 03-06-2042  | 4        | .24   | .223  | .206  |
| 224514   | 03-06-2044  | 4        | .39   | .27   | .24   |
| 224522   | 03-06-2061  | 6        | .45   | .28   | .25   |
| 224549   | 03-06-2122  | 12       | .52   | .30   | .25   |

\*In-line \*\*Grid \*Prepackaged: please order in increments of 10

### With Mounting Ears

| Part No. | Product No. | Circuits | 1     | 10     | 100    |
|----------|-------------|----------|-------|--------|--------|
| 229948   | 03-06-2024  | 2        | \$.37 | \$.308 | \$.223 |
| 229964   | 03-06-2033  | 3        | *     | .142   | .107   |
| 230041   | 03-06-2062  | 6        | .47   | .26    | .24    |
| 230084   | 03-06-2121  | 12       | .28   | .238   | .179   |

\*In-line \*\*Grid Quantity SAVE Lower \$\$\$

### Receptacles



224442



229956



230092

### Without Mounting Ears

| Part No. | Product No. | Circuits | 1     | 10     | 100    |
|----------|-------------|----------|-------|--------|--------|
| 224400   | 03-06-1023  | 2        | \$.33 | \$.198 | \$.149 |
| 224418   | 03-06-1032  | 3        | .31   | .19    | .16    |
| 224426   | 03-06-1042  | 4        | .36   | .28    | .266   |
| 224434   | 03-06-1044  | 4        | .39   | .27    | .24    |
| 224442   | 03-06-1062  | 6        | .45   | .28    | .25    |
| 224451   | 03-06-1092  | 9        | .20   | .175   | .167   |
| 224469   | 03-06-1122  | 12       | .52   | .30    | .25    |

\*In-line \*\*Grid \*Prepackaged: please order in increments of 10

### With Mounting Ears

| Part No. | Product No. | Circuits | 1     | 10    | 100   |
|----------|-------------|----------|-------|-------|-------|
| 229956   | 03-06-1022  | 2        | \$.31 | \$.16 | \$.14 |
| 229972   | 03-06-1038  | 3        | *     | .15   | .112  |
| 230050   | 03-06-1061  | 6        | .47   | .26   | .23   |
| 230092   | 03-06-1121  | 12       | \$.49 | .36   | .23   |

\*In-line \*\*Grid

To Find Additional Products In This Series, Visit [www.Jameco.com/Prod/Molex062](http://www.Jameco.com/Prod/Molex062)

## Extraction Tools for Crimp Pins

- Quickly and easily extract .093" locking pins from interlocking connectors
- Length: 5"
- See above and pg 139 for crimp pins

131887: Male tool for 42730  
131879: Female tool for 42650



131887



| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 131887   | HT319C      | \$11.55 | \$10.35 |
| 131879   | HT319B      | 11.85   | 9.03    |

## .093" (2.36mm) Power Connectors

- Passive friction lock
- Voltage: 250V
- Dielectric withstanding voltage: 1500VAC<sub>RMS</sub>
- Contact retention to housing: 20 lbs. minimum
- Temp. range: -40°C to +105°C
- Housing: nylon; UL94V-2
- Current: 12A per circuit

### Plugs



224071



229825



230181

### Without Mounting Ears

| Part No. | Product No. | Circuits | 1     | 10    | 100   |
|----------|-------------|----------|-------|-------|-------|
| 224071   | 03-09-2022  | 2        | \$.30 | \$.25 | \$.18 |
| 224080   | 03-09-2032  | 3        | .41   | .32   | .21   |
| 224098   | 03-09-2042  | 4        | .45   | .22   | .20   |
| 229825   | 03-09-2049  | 4        | .46   | .368  | .351  |
| 224101   | 03-09-2062  | 6        | .49   | .39   | .29   |
| 224119   | 03-09-2092  | 9        | .22   | .217  | .163  |
| 224127   | 03-09-2121  | 12       | \$.69 | .35   | .224  |
| 462432   | 03-09-2151  | 15       | .65   | .59   | .485  |
| 462441   | 03-09-2158  | 15       | .64   | .58   | .54   |

\*In-line \*\*Grid

### With Mounting Ears

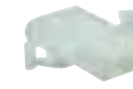
| Part No. | Product No. | Circuits | 1     | 10    | 100   |
|----------|-------------|----------|-------|-------|-------|
| 230105   | 03-09-2021  | 2        | \$.25 | \$.20 | \$.15 |
| 230148   | 03-09-2041  | 4        | .42   | .22   | .20   |
| 230181   | 03-09-2061  | 6        | .35   | .33   | .25   |
| 462459   | 03-09-2159  | 15       | .80   | .72   | .62   |

\*In-line \*\*Grid

### Receptacles



229817



230130



230199

### Without Mounting Ears

| Part No. | Product No. | Circuits | 1     | 10    | 100   |
|----------|-------------|----------|-------|-------|-------|
| 224143   | 03-09-1022  | 2        | \$.30 | \$.25 | \$.18 |
| 224151   | 03-09-1032  | 3        | .44   | .25   | .16   |
| 224160   | 03-09-1042  | 4        | .46   | .25   | .22   |
| 229817   | 03-09-1049  | 4        | .46   | .33   | .248  |
| 224178   | 03-09-1064  | 6        | .25   | .228  | .206  |
| 224186   | 03-09-1094  | 9        | .69   | .59   | .39   |
| 224194   | 03-09-1126  | 12       | .65   | .61   | .457  |

\*In-line \*\*Grid Quantity SAVE Lower \$\$\$

### With Mounting Ears

| Part No. | Product No. | Circuits | 1     | 10    | 100   |
|----------|-------------|----------|-------|-------|-------|
| 230113   | 03-09-1027  | 2        | \$.35 | \$.17 | \$.15 |
| 230130   | 03-09-1081  | 3        | \$.48 | .217  | .163  |
| 230156   | 03-09-1041  | 4        | .27   | .243  | .186  |
| 230199   | 03-09-1061  | 6        | .32   | .249  | .187  |

\*In-line \*\*Grid

▲ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

To Find Additional Products In This Series, Visit [www.Jameco.com/Prod/Molex093](http://www.Jameco.com/Prod/Molex093)

Over 99% of Our Catalog Products Are In Stock

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## .084" (2.13mm) Pin and Socket Connectors

### .084" Molex 42002/42021/42022 Series Value Equivalents

- Intermateable, interchangeable, and intermountable with industry-standard versions
- Positive locks
- Circuit ID grooves to reduce assembly errors
- Material: Nylon 94V-2, white
- Insulation resistance: 1000MΩ
- Dielectric withstanding voltage: 2900V (header); 5000V (wire to wire)
- Fully isolated contacts
- Anti-stress positioning tabs to reduce breakage
- Operating temp: -55°C to +105°C
- Contact resistance: 3.5mΩ max.
- Plating: tin
- Voltage: 600V

**Quantity SAVE**



379284  
(Fig. 1)



379356  
(Fig. 2)



379461  
(Fig. 3)

#### Plugs (Fig. 1)

#### Molex 42021 Series Value Equivalents

- Mates w/ Series 42022 receptacles & 42002 headers

| Part No. | Cross Ref. No. | Grid Layout* | A/Circuit Max | 1       | 10      | 100     |
|----------|----------------|--------------|---------------|---------|---------|---------|
| 379241   | 50-84-1020     | 1 x 2        | 13.5          | \$ .20  | \$ .142 | \$ .107 |
| 379250   | 50-84-1030     | 1 x 3        | 13.5          | .21     | .158    | .119    |
| 379268   | 50-84-1040     | 1 x 4        | 13.5          | .25     | .19     | .16     |
| 379276   | 50-84-1060     | 2 x 3        | 11            | ... .27 | .205    | .154    |
| 379284   | 50-84-1090     | 3 x 3        | 11            | ... .28 | .221    | .166    |
| 379292   | 50-84-1120     | 3 x 4        | 11            | ... .34 | .261    | .196    |
| 379305   | 50-84-1120     | 3 x 5        | 11            | ... .37 | .285    | .214    |

\* Grid layout is rows x columns

#### Receptacles (Fig. 2)

#### Molex 42022 Series Value Equivalents

- Mates with series 42021 plugs

| Part No. | Cross Ref. No. | Grid Layout* | A/Circuit Max | 1       | 10      | 100     |
|----------|----------------|--------------|---------------|---------|---------|---------|
| 379313   | 50-84-2020     | 1 x 2        | 13.5          | \$ .20  | \$ .142 | \$ .106 |
| 379321   | 50-84-2030     | 1 x 3        | 13.5          | .21     | .158    | .119    |
| 379330   | 50-84-2040     | 1 x 4        | 13.5          | .25     | .19     | .16     |
| 379348   | 50-84-2060     | 2 x 3        | 11            | ... .27 | .205    | .154    |
| 379356   | 50-84-2090     | 3 x 3        | 11            | ... .28 | .221    | .166    |
| 379364   | 50-84-2120     | 3 x 4        | 11            | ... .34 | .261    | .196    |
| 379372   | 50-84-2150     | 3 x 5        | 11            | ... .37 | .285    | .214    |

\* Grid layout is rows x columns

#### Vertical Male Headers (Fig. 3)

#### Molex 42002 Series Value Equivalents

- Mates w/ Series 42022 receptacles & 42002 headers

| Part No. | Cross Ref. No. | Grid Layout* | A/Circuit Max | 1          | 10      | 100     |
|----------|----------------|--------------|---------------|------------|---------|---------|
| 379381   | 10-84-4020     | 1 x 2        | 13.5          | ... \$ .45 | \$ .332 | \$ .249 |
| 379401   | 10-84-4030     | 1 x 3        | 13.5          | ... \$ .58 | .51     | .434    |
| 379428   | 10-84-4040     | 1 x 4        | 13.5          | ... .60    | .45     | .337    |
| 379444   | 10-84-4060     | 2 x 3        | 11            | ... .62    | .60     | .45     |
| 379461   | 10-84-4090     | 3 x 3        | 11            | ... .64    | .48     | .36     |
| 379487   | 10-84-4120     | 3 x 4        | 11            | ... .71    | .52     | .47     |
| 379508   | 10-84-4150     | 3 x 5        | 11            | ... 1.05   | .77     | .57     |

\* Grid layout is rows x columns



## MLX Series .084" (2.13mm) Power Connectors

- Intermateable, intermountable, and interchangeable with industry standard versions
- Positive locks
- PCB vertical header
- Fully isolated contacts
- Voltage rating: 600V
- Contact resistance: 3.5mΩ max.
- Dielectric withstanding voltage: 2900V
- Insulation resistance: 1000MΩ min.
- Header contacts: phosphor bronze with tin plating
- Operating temperature: -55°C to +105°C



522280

#### Socket Housing (Red, polyester, 94V-0 rated)

| Part No. | Product Number | Current Rating (A) | Pos. | Matrix | 1         | 10      |
|----------|----------------|--------------------|------|--------|-----------|---------|
| 522327   | 10-84-4023     | 13.5               | 2    | 1 x 2  | .. \$ .22 | \$ .209 |
| 522335   | 10-84-4043     | 13.5               | 4    | 1 x 4  | .... .35  | .338    |
| 522343   | 10-84-4063     | 11.0               | 6    | 2 x 3  | .... .54  | .516    |
| 522351   | 10-84-4093     | 11.0               | 9    | 3 x 3  | .... .79  | .75     |

#### Socket Housing (White, nylon 6/6, 94V-2 rated)

| Part No. | Product Number | Current Rating (A) | Pos. | Matrix | 1         | 10      |
|----------|----------------|--------------------|------|--------|-----------|---------|
| 522431   | 10-84-4042     | 13.5               | 4    | 1 x 4  | .. \$ .33 | \$ .314 |
| 522271   | 10-84-4062     | 11.0               | 6    | 2 x 3  | .... .50  | .475    |
| 522280   | 10-84-4092     | 11.0               | 9    | 3 x 3  | .... .68  | .63     |
| 522255   | 10-84-4122     | 11.0               | 12   | 3 x 4  | .... .93  | .89     |
| 522263   | 10-84-4152     | 11.0               | 15   | 3 x 5  | .. 1.20   | 1.11    |

#### Socket Housing (Red, 94V-0 rated)

| Part No. | Product Number | Current Rating (A) | Pos. | Matrix | 1      | 10      |
|----------|----------------|--------------------|------|--------|--------|---------|
| 522298   | 10-84-4127     | 11.0*              | 12   | 3 x 4  | \$ .29 | \$ .217 |

\* Pins: 30m" select gold

#### Socket Housing (White, polyester, 94V-0 rated)

| Part No. | Product Number | Current Rating (A) | Pos. | Matrix | 1         | 10      |
|----------|----------------|--------------------|------|--------|-----------|---------|
| 522386   | 10-84-5021     | 13.5               | 2    | 1 x 2  | .. \$ .24 | \$ .221 |
| 522394   | 10-84-5031     | 13.5               | 3    | 1 x 3  | .... .65  | .62     |
| 522407   | 10-84-5041     | 13.5               | 4    | 1 x 4  | .... .79  | .75     |
| 522415   | 10-84-5061     | 11.0               | 6    | 2 x 3  | .... .75  | .70     |
| 522423   | 10-84-5091     | 11.0               | 9    | 3 x 3  | .... .75  | .71     |
| 522360   | 10-84-5121     | 11.0               | 12   | 3 x 4  | .. 1.35   | 1.30    |
| 522378   | 10-84-5151     | 11.0               | 15   | 3 x 5  | .. 1.29   | 1.24    |

◆ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

#### Vertical Female Headers (Fig. 3)

#### Molex 42002 Series Value Equivalents

- Mates w/ Series 42022 receptacles & 42002 headers

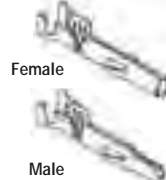
| Part No. | Cross Ref. No. | Grid Layout* | A/Circuit Max | 1       | 10     | 100     |
|----------|----------------|--------------|---------------|---------|--------|---------|
| 379399   | 10-84-4022     | 1 x 2        | 13.5          | \$ .24  | \$ .19 | \$ .143 |
| 379410   | 10-84-4032     | 1 x 3        | 13.5          | .25     | .213   | .16     |
| 379436   | 10-84-4042     | 1 x 4        | 13.5          | .41     | .32    | .24     |
| 379452   | 10-84-4062     | 2 x 3        | 11            | .62     | .47    | .35     |
| 379479   | 10-84-4092     | 3 x 3        | 11            | .55     | .51    | .382    |
| 379495   | 10-84-4122     | 3 x 4        | 11            | ... .80 | .67    | .50     |
| 379516   | 10-84-4152     | 3 x 5        | 11            | ... .99 | .73    | .55     |

\* Grid layout is rows x columns

#### Contacts

Type\*:

- 1: Female
- 2: Male
- A: Brass
- B: Phosphor bronze
- C: Brass standard insertion
- D: Brass low insertion
- Minimum order 10 pieces



| Part No. | Cross Ref. No. | AWG   | Type* | 10       | 100    | 500     |
|----------|----------------|-------|-------|----------|--------|---------|
| 401331   | 71T-D524-LP    | 12-14 | 1B    | \$ .07   | \$ .06 | \$ .045 |
| 379524   | 71T-5224-LP    | 16-20 | 1A    | ... .075 | .064   | .048    |
| 379532   | 71T-5524-LP    | 16-20 | 1B    | ... .07  | .067   | .064    |
| 401306   | 71T-S224-LP    | 18-22 | 1A    | ... .075 | .062   | .047    |
| 401322   | 71T-S524-LP    | 18-22 | 1B    | ... .07  | .067   | .05     |
| 401357   | 70T-D214-LP    | 12-14 | 2A    | ... .087 | .071   | .05     |
| 401373   | 70T-D214-LP    | 12-14 | 2D    | ... .073 | .066   | .05     |
| 379541   | 70T-5214-LP    | 16-20 | 2C    | ... .073 | .066   | .05     |
| 398784   | 70T-5214-LP    | 16-20 | 2C    | ... .073 | .066   | .05     |
| 401349   | 70T-S214-LP    | 18-22 | 2A    | ... .073 | .066   | .05     |

† For 6-15 circuit connectors ◆ Blue Part No. = Limited Quantity

## Greasing the Pins

Have you ever looked at the damage an electrical arc leaves on a piece of metal? I'm sure you're well-aware that the damaged area has a higher resistance than any of the contact surface around it. And if you have ever touched the affected area, you know some of the damaged area is raised relative to the unscarred metal.

If your project requires live circuit connects or disconnects, you might be slowly damaging your device and its reliability. The more voltage and current, the more chance an arc is occurring. With more arcs, the connecting

metal sustains greater damage, which increases resistance and reduces the uniformity of the contact surfaces.

To prevent these failures, I have implemented tri-state circuits that are switched to high-Z before the connector is engaged or disengaged. But if that isn't possible in your design, consider using an arc-inhibiting compound on your pins. Either way, your connector will be more reliable and last longer!



**Practical Practices**  
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JAMECO ValuePro

## .100" (2.54mm) Male Solid Headers (Gold)

- Solder to PC boards for instant plug-in access via shorting blocks, right
  - Insulator: UL94V-0 polyester
  - Contact material: phosphor bronze
  - .025" square posts on a .100" x .100" matrix
  - Use with crimp connector housing, pg 141
- \*Prepackaged: please order in increments of 10

Quantity SAVE

Lower \$\$\$



Blue Part No. = Limited Quantity Available

### .100" Right Angle Single Row Male Headers

153728

153728

| Part No. | Cross Ref. No. | Contacts | 1     | 10    | 100   | 1000  |       |
|----------|----------------|----------|-------|-------|-------|-------|-------|
| 153728   | RMH08          | 8        | ..... | \$.45 | \$.40 | \$.30 | \$.25 |
| 103271   | RMH36          | 36       | ..... | .75   | .64   | .58   | .41   |

### .100" Right Angle Double Row Male Headers

| Cross    |          |          | 53575 |       |       |       | 53575 |  |  |  |
|----------|----------|----------|-------|-------|-------|-------|-------|--|--|--|
| Part No. | Ref. No. | Contacts | 1     | 10    | 100   | 1000  |       |  |  |  |
| 203908   | 923804DR | 4        | ..... | \$.38 | \$.34 | \$.27 | \$.20 |  |  |  |
| 203916   | 923806DR | 6        | ..... | .49   | .44   | .30   | .24   |  |  |  |
| 203924   | 923808DR | 8        | ..... | .49   | .44   | .35   | .26   |  |  |  |
| 203932   | 923810DR | 10       | ..... | .59   | .53   | .48   | .39   |  |  |  |
| 203941   | 923812DR | 12       | ..... | .59   | .53   | .42   | .315  |  |  |  |
| 203959   | 923814DR | 14       | ..... | .65   | .58   | .47   | .352  |  |  |  |
| 203967   | 923816DR | 16       | ..... | .65   | .59   | .53   | .43   |  |  |  |
| 203975   | 923818DR | 18       | ..... | .75   | .68   | .54   | .41   |  |  |  |
| 53575    | 923820DR | 20       | ..... | .65   | .59   | .53   | .47   |  |  |  |
| 53584    | 923826DR | 26       | ..... | .69   | .62   | .51   | .36   |  |  |  |
| 204020   | 923832DR | 32       | ..... | .75   | .68   | .60   | .44   |  |  |  |
| 204046   | 923836DR | 36       | ..... | .75   | .68   | .54   | .405  |  |  |  |
| 53605    | 923840DR | 40       | ..... | .85   | .75   | .57   | .50   |  |  |  |
| 53612    | 923850DR | 50       | ..... | .85   | .75   | .57   | .50   |  |  |  |
| 103413   | 923872DR | 72       | ..... | 1.15  | .99   | .89   | .75   |  |  |  |
| 139563   | 923880DR | 80       | ..... | 1.35  | 1.19  | 1.09  | .99   |  |  |  |

## .100" & 2mm Shorting Blocks



- Mates to .025" square posts on .100" centers
  - Shorts headers/jumper blocks or color codes strip line plugs
  - Mate with male headers, above
  - Pin material: phosphor bronze
- Open: open on top to allow for a test point  
Closed: closed top  
119264: 2mm (for disk drives)

Prepackaged: please order in increments of 10

| Part No. | Description               | 10    | 100   | 1000  |
|----------|---------------------------|-------|-------|-------|
| 22023    | Top open, black (.100")   | \$.12 | \$.09 | \$.06 |
| 119264   | Top open, black (2mm)     | ..... | .15   | .13   |
| 112425   | Top open, blue (.100")    | ..... | .133  | .099  |
| 112416   | Top open, red (.100")     | ..... | .12   | .09   |
| 19141    | Top closed, black (.100") | ..... | .12   | .09   |
| 112442   | Top closed, blue (.100")  | ..... | .12   | .09   |
| 112432   | Top closed, red (.100")   | ..... | .20   | .18   |
| 152671   | Top closed, black (.100") | ..... | .19   | .15   |

## .100" Non-Polarized Connector Housings

see page 141

### .100" Straight Single Row Male Headers

| Part No. | Ref. No. | Contacts | 1     | 10    | 100   | 1000  |
|----------|----------|----------|-------|-------|-------|-------|
| 108337   | SMH02    | 2        | ..... | \$.16 | \$.14 | \$.13 |
| 109576   | SMH03    | 3        | ..... | .17   | .15   | .135  |
| 117560   | SMH04    | 4        | ..... | .17   | .15   | .135  |
| 153700   | SMH06    | 6        | ..... | .17   | .15   | .135  |
| 153702   | SMH08    | 8        | ..... | .22   | .20   | .17   |
| 103392   | SMH10    | 10       | ..... | .20   | .18   | .14   |
| 103377   | SMH17    | 17       | ..... | .16   | .14   | .13   |
| 103369   | SMH20    | 20       | ..... | .28   | .25   | .23   |
| 202825   | SMH22    | 22       | ..... | .30   | .275  | .22   |
| 103351   | SMH25    | 25       | ..... | .28   | .25   | .21   |
| 103342   | SMH30    | 30       | ..... | .35   | .31   | .28   |
| 68339    | SMH36    | 36       | ..... | .42   | .38   | .34   |
| 160882   | SMH40    | 40       | ..... | .49   | .44   | .40   |

### .100" Straight Double Row Male Headers

| Part No. | Ref. No. | Contacts | 1     | 10    | 100   | 1000  |
|----------|----------|----------|-------|-------|-------|-------|
| 115027   | 923804DS | 4        | ..... | \$.10 | \$.09 | \$.07 |
| 115035   | 923806DS | 6        | ..... | .20   | .18   | .16   |
| 109516   | 923808DS | 8        | ..... | .20   | .18   | .16   |
| 67820    | 923810DS | 10       | ..... | .20   | .18   | .16   |
| 203810   | 923812DS | 12       | ..... | .60   | .55   | .49   |
| 118456   | 923814DS | 14       | ..... | .45   | .40   | .36   |
| 109567   | 923816DS | 16       | ..... | .55   | .49   | .45   |
| 203828   | 923818DS | 18       | ..... | .65   | .59   | .55   |
| 53480    | 923820DS | 20       | ..... | .59   | .55   | .48   |
| 203836   | 923822DS | 22       | ..... | .70   | .65   | .59   |
| 203844   | 923824DS | 24       | ..... | .70   | .65   | .59   |
| 203852   | 923826DS | 26       | ..... | .75   | .69   | .55   |
| 203879   | 923830DS | 30       | ..... | .75   | .68   | .54   |
| 203861   | 923832DS | 32       | ..... | .75   | .69   | .55   |
| 53517    | 923834DS | 34       | ..... | .75   | .69   | .61   |
| 203888   | 923836DS | 36       | ..... | .80   | .72   | .58   |
| 203895   | 923838DS | 38       | ..... | .89   | .80   | .72   |
| 53560    | 923850DS | 50       | ..... | .60   | .55   | .49   |
| 68574    | 923860DS | 60       | ..... | .70   | .63   | .504  |
| 103405   | 923872DS | 72       | ..... | .85   | .75   | .69   |
| 117197   | 923880DS | 80       | ..... | .90   | .80   | .75   |

### Other Manufacturers — Great Deals

|       |          |    |       |       |       |       |        |
|-------|----------|----|-------|-------|-------|-------|--------|
| 53495 | 923826DS | 26 | ..... | \$.32 | \$.29 | \$.23 | \$.173 |
| 53532 | 923840DS | 40 | ..... | .59   | .53   | .42   | .31    |

AMP

NEW

## AMP MODU™ Shunts

### 2-Position Low Profile

- 94V-0 rated housing
- 0.100" centerlines
- One-piece contact construction
- High normal forces
- Contacts: phosphor bronze

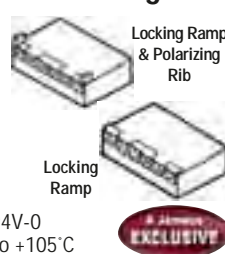
This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

Email us 24/7 at [NewProducts@Jameco.com](mailto:NewProducts@Jameco.com) with suggestions for products you'd like to see in future catalogs.

JAMECO ValuePro

## .100" (2.54mm) Pitch Crimp Terminal Housing

- Current rating: 3A DC
- Voltage rating: 250VAC
- Contact resistance: 20mΩ initial
- Insulation resistance: 1,000MΩ min.
- Withstanding voltage: 1,000VAC/minute
- Housing: nylon 6/6, UL94V-0
- Operating temp.: -40°C to +105°C



### With Locking Ramp and Polarizing Rib

| Part No. | Cross Ref. No. | Pos. | 1     | 10    | 25     |
|----------|----------------|------|-------|-------|--------|
| 675850   | 22-01-3027     | 2    | ..... | \$.20 | \$.137 |
| 675868   | 22-01-3037     | 3    | ..... | .21   | .163   |
| 675876   | 22-01-3047     | 4    | ..... | .20   | .111   |
| 675884   | 22-01-3057     | 5    | ..... | .30   | .269   |
| 675892   | 22-01-3067     | 6    | ..... | .35   | .308   |
| 675905   | 22-01-3077     | 7    | ..... | .31   | .292   |
| 675913   | 22-01-3087     | 8    | ..... | .46   | .403   |
| 675921   | 22-01-3097     | 9    | ..... | .45   | .425   |
| 675930   | 22-01-3107     | 10   | ..... | .42   | .395   |
| 675948   | 22-01-3117     | 11   | ..... | .59   | .528   |
| 675956   | 22-01-3127     | 12   | ..... | .50   | .463   |

### With Locking Ramp

| Part No. | Cross Ref. No. | Pos. | 1     | 10    | 25     |
|----------|----------------|------|-------|-------|--------|
| 676174   | 22-01-2027     | 2    | ..... | \$.20 | \$.117 |
| 676182   | 22-01-2037     | 3    | ..... | .20   | .174   |
| 676191   | 22-01-2047     | 4    | ..... | .24   | .205   |
| 676203   | 22-01-2057     | 5    | ..... | .28   | .185   |
| 676211   | 22-01-2067     | 6    | ..... | .20   | .15    |
| 676220   | 22-01-2077     | 7    | ..... | .36   | .32    |
| 676238   | 22-01-2087     | 8    | ..... | .21   | .20    |
| 676246   | 22-01-2097     | 9    | ..... | .44   | .392   |
| 676254   | 22-01-2107     | 10   | ..... | .48   | .427   |
| 676262   | 22-01-2117     | 11   | ..... | .53   | .472   |
| 676271   | 22-01-2127     | 12   | ..... | .56   | .498   |

### Crimp Terminals

- Current rating: 4A
- Voltage rating: 250VAC
- Contact resistance: 20mΩ initial
- Insulation resistance: 50,000MΩ min.
- Withstanding voltage: 1,500VAC/minute
- Contact material: phosphor bronze
- Wire accommodation: 22-30 AWG
- Insulation range: 1.58mm (0.062") diameter max.

| Part No. | Cross Ref. No. | Plating | 1     | 10    | 25     |
|----------|----------------|---------|-------|-------|--------|
| 676852   | 08-52-0123     | Tin     | ..... | \$.20 | \$.048 |
| 676895   | 08-65-0816     | Gold    | ..... | .20   | .111   |

### Polarizing Key

- Plastic
- Polyester, UL94V-0, Natural

| Part No. | Cross Ref. No. | 1     | 10    | 25     |
|----------|----------------|-------|-------|--------|
| 676908   | 15-04-9209     | ..... | \$.20 | \$.047 |

For more AMP Shunts visit [www.Jameco.com](http://www.Jameco.com)

| Part No. | Product No. | Color | Plating   | 1     | 10    | 100   |
|----------|-------------|-------|-----------|-------|-------|-------|
| 421500   | 390088-2    | Blk   | 15µ" gold | \$.20 | \$.18 | \$.16 |
| 836908   | 2-382811-1  | Blk   | Tin       | ..... | .20   | .087  |
| 421454   | 382811-8    | Blk   | 5µ" gold  | ..... | .20   | .085  |
| 944001   | 382811-9    | Red   | 15µ" gold | ..... | .25   | .129  |

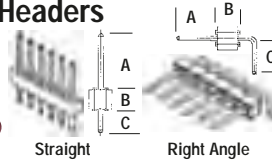
JAMECO ValuePro

## .100" (2.54mm) Male Breakaway Headers

- Insulation resistance: 1,000MΩ min.
- Contact resistance: 20mΩ initial max.
- Withstanding voltage: 500VAC/1 minute
- Housing: glass filled polyester, black (UL94V-0)
- Contact: 0.64mm (0.025") square
- Voltage rating: 250VDC
- Current rating: 3A

Lower \$\$\$

EXCLUSIVE



### Tin Straight Single Row

- (A) .286"; (B) .100"; (C) .118"

| Part No. | Cross Ref. No. | Pos. | 1           | 10           | 25           |
|----------|----------------|------|-------------|--------------|--------------|
| 685708   | 22-28-4022     | 2    | .....\$ .20 | .....\$ .066 | .....\$ .063 |
| 685716   | 22-28-4032     | 3    | .....20     | ......119    | ......113    |
| 685724   | 22-28-4042     | 4    | .....20     | ......166    | ......158    |
| 685732   | 22-28-4052     | 5    | .....24     | ......225    | ......214    |
| 685741   | 22-28-4062     | 6    | .....28     | ......261    | ......249    |
| 685759   | 22-28-4072     | 7    | .....31     | ......287    | ......271    |
| 685767   | 22-28-4082     | 8    | .....33     | ......308    | ......298    |
| 685775   | 22-28-4092     | 9    | .....35     | ......331    | ......323    |
| 685783   | 22-28-4102     | 10   | .....45     | ......413    | ......397    |
| 685791   | 22-28-4112     | 11   | .....50     | ......482    | ......461    |
| 685804   | 22-28-4122     | 12   | .....55     | ......51     | ......49     |

### Tin Straight Single Row

- (A) .348"; (B) .100"; (C) .118"

| Part No. | Cross Ref. No. | Pos. | 1           | 10           | 25           |
|----------|----------------|------|-------------|--------------|--------------|
| 686188   | 22-28-4020     | 2    | .....\$ .21 | .....\$ .182 | .....\$ .173 |
| 686196   | 22-28-4030     | 3    | .....20     | ......174    | ......165    |
| 686209   | 22-28-4040     | 4    | .....27     | ......245    | ......233    |
| 686217   | 22-28-4050     | 5    | .....31     | ......284    | ......27     |
| 686225   | 22-28-4060     | 6    | .....33     | ......284    | ......27     |
| 686233   | 22-28-4070     | 7    | .....33     | ......30     | ......285    |
| 686241   | 22-28-4080     | 8    | .....37     | ......332    | ......315    |
| 686250   | 22-28-4090     | 9    | .....43     | ......371    | ......352    |
| 686268   | 22-28-4100     | 10   | .....44     | ......379    | ......36     |
| 686276   | 22-28-4360     | 36   | .....90     | ......78     | ......74     |

### Gold Straight Single Row

- (A) .286"; (B) .100"; (C) .118"

| Part No. | Cross Ref. No. | Pos. | 1           | 10           | 25           |
|----------|----------------|------|-------------|--------------|--------------|
| 685839   | 22-28-4025     | 2    | .....\$ .41 | .....\$ .371 | .....\$ .353 |
| 685847   | 22-28-4035     | 3    | .....38     | ......362    | ......344    |
| 685855   | 22-28-4045     | 4    | .....73     | ......61     | ......58     |
| 685863   | 22-28-4055     | 5    | .....80     | ......78     | ......74     |
| 685871   | 22-28-4065     | 6    | .....1.08   | ......96     | ......91     |
| 685880   | 22-28-4075     | 7    | .....1.19   | .....1.13    | .....1.09    |
| 685898   | 22-28-4085     | 8    | .....1.36   | .....1.21    | .....1.16    |
| 685901   | 22-28-4095     | 9    | .....1.55   | .....1.35    | .....1.32    |
| 685919   | 22-28-4105     | 10   | .....1.69   | .....1.50    | .....1.47    |
| 685927   | 22-28-4115     | 11   | .....1.89   | .....1.65    | .....1.57    |
| 685935   | 22-28-4125     | 12   | .....1.99   | .....1.78    | .....1.75    |

### Gold Straight Single Row

- (A) .348"; (B) .100"; (C) .118"

| Part No. | Cross Ref. No. | Pos. | 1           | 10           | 25           |
|----------|----------------|------|-------------|--------------|--------------|
| 686292   | 22-28-4023     | 2    | .....\$ .20 | .....\$ .182 | .....\$ .173 |
| 686305   | 22-28-4033     | 3    | .....27     | ......245    | ......233    |
| 686313   | 22-28-4043     | 4    | .....28     | ......253    | ......24     |
| 686321   | 22-28-4053     | 5    | .....29     | ......261    | ......248    |
| 686330   | 22-28-4063     | 6    | .....29     | ......261    | ......248    |
| 686348   | 22-28-4073     | 7    | .....29     | ......261    | ......248    |
| 686356   | 22-28-4083     | 8    | .....30     | ......269    | ......256    |
| 686364   | 22-28-4093     | 9    | .....37     | ......34     | ......323    |
| 686372   | 22-28-4103     | 10   | .....37     | ......34     | ......323    |
| 686381   | 22-28-4363     | 36   | .....1.31   | .....1.03    | ......98     |

We will be adding hundreds of new connectors in the coming months. Check [www.Jameco.com](http://www.Jameco.com) frequently for all the newest additions.

### Tin Right Angle Single Row

- (A) .309"; (B) .100"; (C) .118"

| Part No. | Cross Ref. No. | Pos. | 1           | 10           | 25           |
|----------|----------------|------|-------------|--------------|--------------|
| 685960   | 22-28-6020     | 2    | .....\$ .20 | .....\$ .143 | .....\$ .135 |
| 685978   | 22-28-6030     | 3    | .....22     | ......207    | ......196    |
| 685986   | 22-28-6040     | 4    | .....35     | ......338    | ......325    |
| 685994   | 22-28-6050     | 5    | .....38     | ......37     | ......354    |
| 686006   | 22-28-6060     | 6    | .....47     | ......453    | ......434    |
| 686014   | 22-28-6070     | 7    | .....54     | ......474    | ......461    |
| 686022   | 22-28-6080     | 8    | .....66     | ......64     | ......61     |
| 686031   | 22-28-6090     | 9    | .....50     | ......487    | ......466    |
| 686049   | 22-28-6100     | 10   | .....53     | ......49     | ......47     |
| 686057   | 22-28-6110     | 11   | .....55     | ......535    | ......512    |
| 686065   | 22-28-6120     | 12   | .....57     | ......521    | ......51     |

### Tin Right Angle Single Row

- (A) .348"; (B) .100"; (C) .118"

| Part No. | Cross Ref. No. | Pos. | 1           | 10           | 25           |
|----------|----------------|------|-------------|--------------|--------------|
| 686401   | 22-28-8020     | 2    | .....\$ .23 | .....\$ .198 | .....\$ .188 |
| 686410   | 22-28-8030     | 3    | .....20     | ......182    | ......173    |
| 686428   | 22-28-8040     | 4    | .....31     | ......277    | ......263    |
| 686436   | 22-28-8050     | 5    | .....34     | ......30     | ......285    |
| 686444   | 22-28-8060     | 6    | .....34     | ......30     | ......285    |
| 686452   | 22-28-8070     | 7    | .....42     | ......379    | ......36     |
| 686461   | 22-28-8080     | 8    | .....42     | ......379    | ......36     |
| 686479   | 22-28-8090     | 9    | .....45     | ......348    | ......33     |
| 686487   | 22-28-8100     | 10   | .....38     | ......356    | ......338    |
| 686495   | 22-28-8360     | 36   | .....1.29   | .....1.02    | ......97     |

### Gold Right Angle Single Row

- (A) .309"; (B) .100"; (C) .118"

| Part No. | Cross Ref. No. | Pos. | 1           | 10           | 25           |
|----------|----------------|------|-------------|--------------|--------------|
| 686073   | 22-28-6022     | 2    | .....\$ .31 | .....\$ .297 | .....\$ .285 |
| 686081   | 22-28-6032     | 3    | .....51     | ......435    | ......413    |
| 686090   | 22-28-6042     | 4    | .....51     | ......49     | ......466    |
| 686102   | 22-28-6052     | 5    | .....82     | ......73     | ......70     |
| 686111   | 22-28-6062     | 6    | .....74     | ......72     | ......69     |
| 686129   | 22-28-6072     | 7    | .....83     | ......81     | ......79     |
| 686137   | 22-28-6082     | 8    | .....99     | ......91     | ......90     |
| 686145   | 22-28-6092     | 9    | .....1.07   | .....1.00    | ......92     |
| 686153   | 22-28-6102     | 10   | .....1.09   | .....1.01    | ......95     |
| 686161   | 22-28-6112     | 11   | .....1.12   | .....1.02    | ......97     |
| 686170   | 22-28-6122     | 12   | .....1.27   | .....1.03    | .....1.00    |

JAMECO ValuePro

## .100" (2.54mm) Pitch Solid Headers

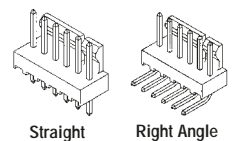
- Voltage rating: 250VAC
- Contact material: brass, tin plated 0.025" square posts
- Insulation resistance: 1,000MΩ min.
- Withstanding voltage: 1,000VAC/1minute
- Current rating: 3A
- Contact resistance: 20mΩ max.

### Straight with Friction Lock

| Part No. | Cross Ref. No. | Pos. | 1           | 10           | 25           |
|----------|----------------|------|-------------|--------------|--------------|
| 687957   | 22-23-2021     | 2    | .....\$ .20 | .....\$ .142 | .....\$ .135 |
| 687965   | 22-23-2031     | 3    | .....21     | ......198    | ......19     |
| 687973   | 22-23-2041     | 4    | .....26     | ......252    | ......241    |
| 687981   | 22-23-2051     | 5    | .....31     | ......30     | ......287    |
| 687990   | 22-23-2061     | 6    | .....36     | ......344    | ......329    |
| 688001   | 22-23-2071     | 7    | .....31     | ......302    | ......289    |
| 688028   | 22-23-2081     | 8    | .....48     | ......468    | ......447    |
| 688036   | 22-23-2091     | 9    | .....53     | ......51     | ......488    |
| 688044   | 22-23-2101     | 10   | .....57     | ......55     | ......53     |
| 688052   | 22-23-2111     | 11   | .....60     | ......58     | ......56     |
| 688061   | 22-23-2121     | 12   | .....50     | ......481    | ......46     |

### Right Angle with Friction Lock

| Part No. | Cross Ref. No. | Pos. | 1           | 10           | 25           |
|----------|----------------|------|-------------|--------------|--------------|
| 688212   | 22-05-3021     | 2    | .....\$ .33 | .....\$ .323 | .....\$ .307 |
| 688221   | 22-05-3031     | 3    | .....28     | ......27     | ......258    |
| 688239   | 22-05-3041     | 4    | .....36     | ......35     | ......333    |
| 688247   | 22-05-3051     | 5    | .....35     | ......33     | ......314    |
| 688255   | 22-05-3061     | 6    | .....51     | ......487    | ......467    |
| 688263   | 22-05-3071     | 7    | .....61     | ......59     | ......58     |
| 688271   | 22-05-3081     | 8    | .....65     | ......63     | ......61     |
| 688280   | 22-05-3091     | 9    | .....71     | ......67     | ......65     |
| 688298   | 22-05-3101     | 10   | .....76     | ......71     | ......69     |
| 688301   | 22-05-3111     | 11   | .....65     | ......63     | ......60     |
| 688319   | 22-05-3121     | 12   | .....59     | ......56     | ......504    |



We're Listening to Your Requests

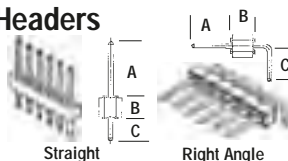
Email us 24/7 at [NewProducts@Jameco.com](mailto:NewProducts@Jameco.com) with suggestions for products you'd like to see in future catalogs.



## .100" (2.54mm) Male Breakaway Headers

- Voltage rating: 250VDC
- Contact resistance: 20mΩ initial max.
- Withstanding voltage: 500VAC/1 minute
- Housing: glass filled polyester, black (UL94V-0)
- Contact: 0.64mm (0.025") square
- Insulation resistance: 1,000MΩ min.
- Current rating: 3A

Lower \$\$\$



### 2556 Series Tin Straight Single Row

- (A) 0.240"; (B) 0.100"; (C) 0.125"

| Part No. | Cross Ref. No. | Pos. | 1           | 10           | 25           |
|----------|----------------|------|-------------|--------------|--------------|
| 677038   | 2556P02TL62R   | 2    | .....\$ .20 | .....\$ .066 | .....\$ .063 |
| 677046   | 2556P03TL62R   | 3    | ......20    | ......119    | ......113    |
| 677054   | 2556P04TL62R   | 4    | ......20    | ......166    | ......158    |
| 677062   | 2556P05TL62R   | 5    | ......24    | ......225    | ......214    |
| 677071   | 2556P06TL62R   | 6    | ......28    | ......261    | ......249    |
| 677089   | 2556P07TL62R   | 7    | ......29    | ......279    | ......267    |
| 677097   | 2556P08TL62R   | 8    | ......33    | ......308    | ......298    |
| 677100   | 2556P09TL62R   | 9    | ......35    | ......321    | ......317    |
| 677118   | 2556P10TL62R   | 10   | ......37    | ......348    | ......339    |
| 677126   | 2556P11TL62R   | 11   | ......39    | ......367    | ......359    |
| 677134   | 2556P12TL62R   | 12   | ......41    | ......397    | ......377    |

### 2556 Series Tin Straight Single Row

- (A) 0.925"; (B) 0.100"; (C) 0.118"

| Part No. | Cross Ref. No. | Pos. | 1           | 10           | 25           |
|----------|----------------|------|-------------|--------------|--------------|
| 678971   | 2556P02TL58R   | 2    | .....\$ .21 | .....\$ .182 | .....\$ .173 |
| 678989   | 2556P03TL58R   | 3    | ......20    | ......174    | ......165    |
| 678997   | 2556P04TL58R   | 4    | ......27    | ......245    | ......233    |
| 679009   | 2556P05TL58R   | 5    | ......31    | ......284    | ......27     |
| 679017   | 2556P06TL58R   | 6    | ......33    | ......284    | ......27     |
| 679025   | 2556P07TL58R   | 7    | ......33    | ......30     | ......285    |
| 679033   | 2556P08TL58R   | 8    | ......37    | ......332    | ......315    |
| 679041   | 2556P09TL58R   | 9    | ......43    | ......371    | ......352    |
| 679050   | 2556P10TL58R   | 10   | ......44    | ......379    | ......36     |
| 679068   | 2556P36TL58R   | 36   | ......90    | ......78     | ......74     |

### 2556 Series Gold Straight Single Row

- (A) 0.286"; (B) 0.100"; (C) 0.118"

| Part No. | Cross Ref. No. | Pos. | 1          | 10           | 25           |
|----------|----------------|------|------------|--------------|--------------|
| 677142   | 2556P02WB00R   | 2    | ....\$ .41 | .....\$ .371 | .....\$ .353 |
| 677151   | 2556P03WB00R   | 3    | ......38   | ......362    | ......344    |
| 677169   | 2556P04WB00R   | 4    | ......73   | ......61     | ......58     |
| 677177   | 2556P05WB00R   | 5    | ......80   | ......78     | ......74     |
| 677185   | 2556P06WB00R   | 6    | .....1.08  | ......96     | ......91     |
| 677193   | 2556P07WB00R   | 7    | ....1.19   | .....1.09    | ......99     |
| 677206   | 2556P08WB00R   | 8    | .....1.36  | .....1.21    | .....1.16    |
| 677214   | 2556P09WB00R   | 9    | .....1.55  | .....1.35    | .....1.32    |
| 677222   | 2556P10WB00R   | 10   | .....1.69  | .....1.50    | .....1.47    |
| 677231   | 2556P11WB00R   | 11   | .....1.89  | .....1.65    | .....1.57    |
| 677249   | 2556P12WB00R   | 12   | .....1.99  | .....1.78    | .....1.75    |

### 2556 Series Gold Straight Single Row

- (A) 0.240"; (B) 0.100"; (C) 0.125"

| Part No. | Cross Ref. No. | Pos. | 1           | 10           | 25           |
|----------|----------------|------|-------------|--------------|--------------|
| 679084   | 2556P02JL62R   | 2    | .....\$ .20 | .....\$ .182 | .....\$ .173 |
| 679092   | 2556P03JL62R   | 3    | ......27    | ......245    | ......233    |
| 679105   | 2556P04JL62R   | 4    | ......28    | ......253    | ......24     |
| 679113   | 2556P05JL62R   | 5    | ......29    | ......261    | ......248    |
| 679121   | 2556P06JL62R   | 6    | ......29    | ......261    | ......248    |
| 679130   | 2556P07JL62R   | 7    | ......29    | ......261    | ......248    |
| 679148   | 2556P08JL62R   | 8    | ......30    | ......269    | ......256    |
| 679156   | 2556P09JL62R   | 9    | ......37    | ......34     | ......323    |
| 679164   | 2556P10JL62R   | 10   | ......37    | ......34     | ......323    |
| 679172   | 2556P36JL62R   | 36   | .....1.31   | .....1.03    | ......98     |

Have you found a product at a lower print-advertised price? We'll beat that price by 10%, right down to our cost!

### 2557 Series Tin Right Angle Single Row

- (A) 0.309"; (B) 0.100"; (C) 0.118"

| Part No. | Cross Ref. No. | Pos. | 1           | 10           | 25           |
|----------|----------------|------|-------------|--------------|--------------|
| 677505   | 2557P02T000R   | 2    | .....\$ .20 | .....\$ .143 | .....\$ .135 |
| 677513   | 2557P03T000R   | 3    | ......22    | ......207    | ......196    |
| 677521   | 2557P04T000R   | 4    | ......35    | ......338    | ......325    |
| 677530   | 2557P05T000R   | 5    | ......38    | ......37     | ......354    |
| 677548   | 2557P06T000R   | 6    | ......47    | ......453    | ......438    |
| 677556   | 2557P07T000R   | 7    | ......54    | ......474    | ......461    |
| 677564   | 2557P08T000R   | 8    | ......66    | ......64     | ......61     |
| 677572   | 2557P09T000R   | 9    | ......69    | ......67     | ......63     |
| 677581   | 2557P10T000R   | 10   | ......75    | ......72     | ......69     |
| 677599   | 2557P11T000R   | 11   | ......55    | ......535    | ......512    |
| 677601   | 2557P12T000R   | 12   | ......57    | ......521    | ......51     |

### 2557 Series Tin Right Angle Single Row

- (A) 0.244"; (B) 0.100"; (C) 0.120"

| Part No. | Cross Ref. No. | Pos. | 1           | 10           | 25           |
|----------|----------------|------|-------------|--------------|--------------|
| 679199   | 2567P02TL39R   | 2    | .....\$ .23 | .....\$ .198 | .....\$ .188 |
| 679201   | 2567P03TL39R   | 3    | ......20    | ......182    | ......173    |
| 679210   | 2567P04TL39R   | 4    | ......31    | ......277    | ......263    |
| 679228   | 2567P05TL39R   | 5    | ......34    | ......30     | ......285    |
| 679236   | 2567P06TL39R   | 6    | ......34    | ......30     | ......285    |
| 679244   | 2567P07TL39R   | 7    | ......42    | ......379    | ......36     |
| 679252   | 2567P08TL39R   | 8    | ......42    | ......379    | ......36     |
| 679261   | 2567P09TL39R   | 9    | ......45    | ......348    | ......33     |
| 679279   | 2567P10TL39R   | 10   | ......38    | ......356    | ......338    |
| 679287   | 2567P36TL39R   | 36   | .....1.29   | .....1.02    | ......97     |

### 2557 Series Gold Right Angle Single Row

- (A) 0.309"; (B) 0.100"; (C) 0.118"

| Part No. | Cross Ref. No. | Pos. | 1           | 10           | 25           |
|----------|----------------|------|-------------|--------------|--------------|
| 677628   | 2557P02U000R   | 2    | .....\$ .31 | .....\$ .297 | .....\$ .285 |
| 677644   | 2557P03U000R   | 3    | ......51    | ......435    | ......413    |
| 677652   | 2557P04U000R   | 4    | ......51    | ......49     | ......466    |
| 677871   | 2557P05U000R   | 5    | ......82    | ......73     | ......70     |
| 677880   | 2557P06U000R   | 6    | ......85    | ......77     | ......73     |
| 677898   | 2557P07U000R   | 7    | ......95    | ......89     | ......83     |
| 677901   | 2557P08U000R   | 8    | ......99    | ......91     | ......90     |
| 677919   | 2557P09U000R   | 9    | .....1.07   | .....1.00    | ......92     |
| 677927   | 2557P10U000R   | 10   | .....1.24   | .....1.06    | .....1.03    |
| 677935   | 2557P11U000R   | 11   | .....1.12   | .....1.02    | ......97     |
| 677943   | 2557P12U000R   | 12   | .....1.27   | .....1.03    | .....1.00    |



## .100" (2.54mm) Pitch Solid Headers

- Voltage rating: 250VAC
- Contact material: brass, tin plated 0.025" square posts
- Insulation resistance: 1,000MΩ min.
- Withstanding voltage: 1,000VAC/1 minute
- Current rating: 3A
- Contact resistance: 20mΩ max.

### Straight with Friction Lock

| Part No. | Cross Ref. No. | Pos. | 1           | 10           | 25           |
|----------|----------------|------|-------------|--------------|--------------|
| 677257   | 2571P02V000R   | 2    | .....\$ .20 | .....\$ .142 | .....\$ .135 |
| 677265   | 2571P03V000R   | 3    | ......21    | ......198    | ......19     |
| 677273   | 2571P04V000R   | 4    | ......26    | ......252    | ......241    |
| 677281   | 2571P05V000R   | 5    | ......31    | ......30     | ......287    |
| 677290   | 2571P06V000R   | 6    | ......36    | ......344    | ......329    |
| 677302   | 2571P07V000R   | 7    | ......31    | ......302    | ......289    |
| 677311   | 2571P08V000R   | 8    | ......48    | ......468    | ......447    |
| 677329   | 2571P09V000R   | 9    | ......53    | ......51     | ......488    |
| 677337   | 2571P10V000R   | 10   | ......59    | ......56     | ......531    |
| 677345   | 2571P11V000R   | 11   | ......60    | ......58     | ......56     |
| 677353   | 2571P12V000R   | 12   | ......65    | ......61     | ......59     |

## .100" (2.54mm) Pitch PCB Connectors

- Tin plated solder tail terminal
- Accepts 0.025" square posts
- Voltage rating: 250VAC
- Current rating: 3A
- Contact resistance: 40mΩ max.
- Contact material: brass
- Insulation resistance: 1,000MΩ min.
- Insulation material: nylon 6/6, UL94V-2
- Withstanding voltage: 1,000VAC/minute



Bottom Entry



Top Entry

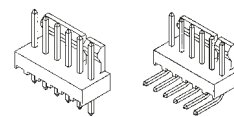
### Receptacle, Bottom Entry

| Part No. | Cross Ref. No. | Pos. | 1          | 10           | 25           |
|----------|----------------|------|------------|--------------|--------------|
| 676553   | 2405S02R000R   | 2    | ....\$ .27 | .....\$ .237 | .....\$ .215 |
| 676561   | 2405S03R000R   | 3    | ......27   | ......25     | ......208    |
| 676570   | 2405S04R000R   | 4    | ......46   | ......411    | ......367    |
| 676588   | 2405S05R000R   | 5    | ......56   | ......498    | ......438    |
| 676596   | 2405S06R000R   | 6    | ......66   | ......58     | ......513    |
| 676609   | 2405S07R000R   | 7    | ......75   | ......67     | ......64     |
| 676617   | 2405S08R000R   | 8    | ......77   | ......71     | ......59     |
| 676625   | 2405S09R000R   | 9    | ......73   | ......68     | ......57     |
| 676633   | 2405S10R000R   | 10   | ......92   | ......85     | ......71     |
| 676641   | 2405S11R000R   | 11   | ....1.05   | ......98     | ......82     |
| 676650   | 2405S12R000R   | 12   | ....1.15   | .....1.07    | ......89     |

### Receptacle, Top Entry with Hooks

| Part No. | Cross Ref. No. | Pos. | 1          | 10           | 25          |
|----------|----------------|------|------------|--------------|-------------|
| 676668   | 2405S02V000R   | 2    | ....\$ .20 | .....\$ .168 | .....\$ .16 |
| 676676   | 2405S03V000R   | 3    | ......28   | ......25     | ......23    |
| 676684   | 2405S04V000R   | 4    | ......37   | ......344    | ......319   |
| 676692   | 2405S05V000R   | 5    | ......36   | ......331    | ......306   |
| 676705   | 2405S06V000R   | 6    | ......58   | ......48     | ......45    |
| 676713   | 2405S07V000R   | 7    | ......67   | ......60     | ......58    |
| 676721   | 2405S08V000R   | 8    | ......74   | ......67     | ......63    |
| 676730   | 2405S09V000R   | 9    | ......65   | ......60     | ......55    |
| 676764   | 2405S10V000R   | 10   | ......78   | ......73     | ......67    |
| 676772   | 2405S11V000R   | 11   | ....1.02   | ......86     | ......84    |
| 676781   | 2405S12V000R   | 12   | ....1.11   | ......95     | ......93    |

We will be adding hundreds of new connectors in the coming months. Check [www.Jameco.com](http://www.Jameco.com) frequently for all the newest additions.



Straight

Right Angle

### Right Angle with Friction Lock

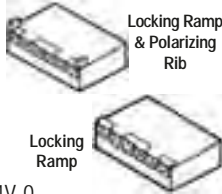
| Part No. | Cross Ref. No. | Pos. | 1           | 10           | 25           |
|----------|----------------|------|-------------|--------------|--------------|
| 677960   | 2571P02H000R   | 2    | .....\$ .33 | .....\$ .323 | .....\$ .307 |
| 678006   | 2571P03H000R   | 3    | ......28    | ......27     | ......258    |
| 678014   | 2571P04H000R   | 4    | ......36    | ......35     | ......333    |
| 678022   | 2571P05H000R   | 5    | ......35    | ......33     | ......314    |
| 678031   | 2571P06H000R   | 6    | ......51    | ......487    | ......467    |
| 678049   | 2571P07H000R   | 7    | ......61    | ......58     | ......57     |
| 678057   | 2571P08H000R   | 8    | ......69    | ......63     | ......61     |
| 678065   | 2571P09H000R   | 9    | ......73    | ......67     | ......61     |
| 678073   | 2571P10H000R   | 10   | ......76    | ......71     | ......69     |
| 678081   | 2571P11H000R   | 11   | ......79    | ......75     | ......73     |
| 678090   | 2571P12H000R   | 12   | ......83    | ......79     | ......75     |





## .100" (2.54mm) Pitch Crimp Terminal Housing

- Current rating: 3A DC
- Voltage rating: 250VAC
- Contact resistance: 20mΩ initial
- Insulation resistance: 1,000MΩ min.
- Withstanding voltage: 1,000VAC/minute
- Housing: nylon 6/6, UL94V-0
- Operating temp.: -40°C to +105°C



### With Locking Ramp and Polarizing Rib

| Part No. | Cross Ref. No. | Pos. | 1            | 10      | 25     |
|----------|----------------|------|--------------|---------|--------|
| 688554   | 2530S020000    | 2    | ..... \$ .20 | \$ .137 | \$ .11 |
| 688562   | 2530S030000    | 3    | ..... .20    | .182    | .16    |
| 688571   | 2530S040000    | 4    | ..... .20    | .111    | .105   |
| 688600   | 2530S050000    | 5    | ..... .31    | .269    | .255   |
| 688618   | 2530S060000    | 6    | ..... .35    | .308    | .293   |
| 688626   | 2530S070000    | 7    | ..... .31    | .292    | .269   |
| 688642   | 2530S080000    | 8    | ..... .45    | .403    | .383   |
| 688651   | 2530S090000    | 9    | ..... .42    | .389    | .364   |
| 688669   | 2530S100000    | 10   | ..... .42    | .395    | .369   |
| 688677   | 2530S110000    | 11   | ..... .59    | .528    | .51    |
| 688685   | 2530S120000    | 12   | ..... .52    | .483    | .452   |

### With Locking Ramp

| Part No. | Cross Ref. No. | Pos. | 1            | 10      | 25      |
|----------|----------------|------|--------------|---------|---------|
| 688802   | 2530S020N00    | 2    | ..... \$ .20 | \$ .117 | \$ .093 |
| 688811   | 2530S030N00    | 3    | ..... .20    | .174    | .143    |
| 688829   | 2530S040N00    | 4    | ..... .24    | .205    | .186    |
| 688837   | 2530S050N00    | 5    | ..... .28    | .185    | .176    |
| 688845   | 2530S060N00    | 6    | ..... .20    | .15     | .14     |
| 688853   | 2530S070N00    | 7    | ..... .36    | .32     | .30     |
| 688861   | 2530S080N00    | 8    | ..... .21    | .20     | .195    |
| 688870   | 2530S090N00    | 9    | ..... .44    | .392    | .37     |
| 688888   | 2530S100N00    | 10   | ..... .49    | .427    | .406    |
| 688896   | 2530S110N00    | 11   | ..... .53    | .472    | .45     |
| 688909   | 2530S120N00    | 12   | ..... .56    | .498    | .473    |

### Crimp Terminals

- Voltage rating: 250VAC
- Current rating: 4A
- Contact resistance: 20mΩ initial
- Insulation resistance: 50,000MΩ min.
- Withstanding voltage: 1,500VAC/minute
- Contact material: phosphor bronze



| Part No. | Cross Ref. No. | Plating | 1            | 10      | 25      |
|----------|----------------|---------|--------------|---------|---------|
| 689274   | 2533TPB00A0    | Tin     | ..... \$ .20 | \$ .048 | \$ .044 |
| 689291   | 2533TPBU0A0    | Gold    | ..... .20    | .111    | .109    |

### Polarizing Key

- Plastic
- Polyester, UL94V-0, Natural

| Part No. | Cross Ref. No. | 1            | 10      | 25      |
|----------|----------------|--------------|---------|---------|
| 689258   | 6001-PK0005    | ..... \$ .20 | \$ .047 | \$ .044 |



## .100" (2.54mm) KK® Terminals

- Voltage: 250V
- Current: 4A
- Contact resistance: 20mΩ max.
- Dielectric w/standing voltage: 1500VAC
- Insulation resistance: 50k MΩ min.
- Phosphor bronze
- 22-30 AWG (462969: cat ear)
- Prepackaged: please order in increments of 10



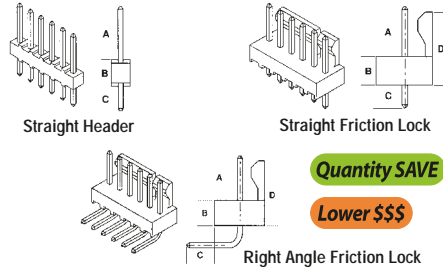
| Part No. | Product No. | Plating             | 10           | 100    |
|----------|-------------|---------------------|--------------|--------|
| 462969   | 08-65-0805  | Tin (Bag)           | ..... \$ .10 | \$ .09 |
| 462985   | 08-65-0814  | 15μ gold (Bag)      | ..... .437   | .418   |
| 463005   | 08-65-0816  | 15μ sel. gold (Bag) | ..... .147   | .14    |

▲ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.



## KK® Series .100" (2.54mm) Male Headers

- Voltage: 250V
- Current: 4.0A
- Contact resistance: 20mΩ max.
- Housing: nylon, UL94V-0
- Dielectric withstanding voltage: 1500V
- Insulation resistance: 50,000MΩ min.
- Contact: brass, 0 – 6.4mm (0.25") square
- Durability: tin – 25 cycles max.; gold – 100 cycles max.



### Straight Header (Tin)

- Dimensions: (A) .295"; (B) .130"; (C) .135"

\*Prepackaged: please order in increments of 10

| Part No. | Product No. | Positions | 1       | 10      | 100     |
|----------|-------------|-----------|---------|---------|---------|
| 232186   | 22-03-2031  | 3         | ..... * | \$ .145 | \$ .109 |

### Straight Friction Lock Headers (Tin)

- Dimensions: (A) .295"; (B) .125"; (C) .140"; (D) .322"

| Part No. | Product No. | Positions | 1            | 10     | 100    |
|----------|-------------|-----------|--------------|--------|--------|
| 232266   | 22-23-2021  | 2         | ..... \$ .29 | \$ .23 | \$ .15 |
| 232274   | 22-23-2031  | 3         | ..... .35    | .30    | .19    |
| 232282   | 22-23-2041  | 4         | ..... .42    | .36    | .23    |
| 232291   | 22-23-2051  | 5         | ..... .49    | .42    | .27    |
| 232303   | 22-23-2061  | 6         | ..... .55    | .48    | .31    |
| 232311   | 22-23-2071  | 7         | ..... .63    | .55    | .36    |
| 232320   | 22-23-2081  | 8         | ..... .72    | .63    | .41    |
| 232338   | 22-23-2091  | 9         | ..... .61    | .489   | .467   |
| 232346   | 22-23-2101  | 10        | ..... .80    | .70    | .46    |
| 232354   | 22-23-2121  | 12        | ..... .95    | .83    | .55    |

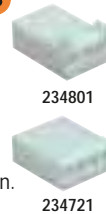


## KK® Series .100" (2.54mm) Female Housing & Crimp Contacts

- Voltage: 250V
- Current: phosphor bronze – 4.0A max., brass – 2.5A max.
- Contact resistance: 20mΩ max.
- Dielectric withstanding volt.: 1500VAC
- Insulation resistance: 50,000MΩ

### Housing Material:

- Contact insertion force: 1.5 lbs. max.
- Contact retention to housing: 8 lbs. min.
- Housing: nylon, UL94V-0
- Operating temperature: 0 to 75°C



### Housing with Locking Ramp & Polarizing Ribs

| Part No. | Product No. | Positions | 1            | 10     | 100    |
|----------|-------------|-----------|--------------|--------|--------|
| 234798   | 22-01-3027  | 2         | ..... \$ .29 | \$ .17 | \$ .10 |
| 234801   | 22-01-3037  | 3         | ..... .29    | .21    | .13    |
| 234819   | 22-01-3047  | 4         | ..... .31    | .27    | .17    |
| 234827   | 22-01-3057  | 5         | ..... .36    | .31    | .20    |
| 234835   | 22-01-3067  | 6         | ..... .42    | .36    | .23    |
| 234843   | 22-01-3077  | 7         | ..... .47    | .40    | .30    |
| 234851   | 22-01-3087  | 8         | ..... .54    | .47    | .30    |
| 234878   | 22-01-3107  | 10        | ..... .65    | .55    | .35    |
| 234886   | 22-01-3127  | 12        | ..... .76    | .66    | .42    |

### Right Angle Friction Lock Headers (Tin)

- Dimensions: (A) .260"; (B) .125"; (C) .141"; (D) .322"

| Part No. | Product No. | Positions | 1            | 10     | 100    |
|----------|-------------|-----------|--------------|--------|--------|
| 233437   | 22-05-3021  | 2         | ..... \$ .42 | \$ .36 | \$ .22 |
| 233445   | 22-05-3031  | 3         | ..... .56    | .49    | .30    |
| 233453   | 22-05-3041  | 4         | ..... .71    | .61    | .39    |
| 233461   | 22-05-3051  | 5         | ..... .77    | .65    | .49    |
| 233470   | 22-05-3061  | 6         | ..... .85    | .74    | .48    |
| 233488   | 22-05-3071  | 7         | ..... .99    | .79    | .56    |
| 233496   | 22-05-3081  | 8         | ..... 1.03   | .83    | .58    |
| 233517   | 22-05-3121  | 12        | ..... 1.19   | .99    | .69    |

### Straight Friction Lock Headers (Gold)

- Dimensions: (A) .295"; (B) .125"; (C) .140"; (D) .322"

| Part No. | Product No. | Positions | 1            | 10     | 100    |
|----------|-------------|-----------|--------------|--------|--------|
| 233584   | 22-11-2022  | 2         | ..... \$ .54 | \$ .46 | \$ .29 |
| 233592   | 22-11-2032  | 3         | ..... .85    | .74    | .47    |
| 233605   | 22-11-2042  | 4         | ..... .87    | .76    | .49    |
| 233613   | 22-11-2052  | 5         | ..... .83    | .79    | .67    |
| 233621   | 22-11-2062  | 6         | ..... 1.34   | 1.17   | .76    |
| 233656   | 22-11-2102  | 10        | ..... 2.05   | 1.77   | 1.16   |

### Right Angle Friction Lock Headers (Gold)

- Dimensions: (A) .260"; (B) .125"; (C) .141"; (D) .322"

| Part No. | Product No. | Positions | 1            | 10     | 100    |
|----------|-------------|-----------|--------------|--------|--------|
| 233672   | 22-12-2024  | 2         | ..... \$ .89 | \$ .77 | \$ .48 |
| 233699   | 22-12-2044  | 4         | ..... \$1.30 | .90    | .58    |

### Housing with Locking Ramp

| Part No. | Product No. | Positions | 1            | 10     | 100    |
|----------|-------------|-----------|--------------|--------|--------|
| 234704   | 22-01-2027  | 2         | ..... \$ .29 | \$ .15 | \$ .09 |
| 234712   | 22-01-2037  | 3         | ..... .29    | .20    | .12    |
| 234721   | 22-01-2047  | 4         | ..... .29    | .24    | .15    |
| 234739   | 22-01-2057  | 5         | ..... .33    | .28    | .17    |
| 234747   | 22-01-2067  | 6         | ..... .36    | .32    | .20    |
| 234755   | 22-01-2087  | 8         | ..... .47    | .41    | .26    |
| 234771   | 22-01-2107  | 10        | ..... .57    | .49    | .31    |
| 234780   | 22-01-2127  | 12        | ..... .67    | .57    | .43    |

### Crimp Contacts

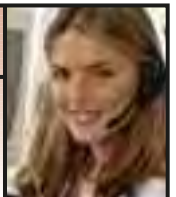
- Material: brass
- Accommodates 22 to 30 AWG
- Insulation range: 0.062" (1.58mm) diameter max.
- 234923: Brass with tin plating
- 234931: Brass with 15μ select gold plating
- Prepackaged: please order in increments of 10

| Part No. | Product No. | 10            | 100     | 1000    |
|----------|-------------|---------------|---------|---------|
| 234923   | 08-50-0114  | ..... \$ .065 | \$ .048 | \$ .029 |
| 234931   | 08-55-0102  | ..... .22     | .17     | .11     |

To Find Additional KK .100" Products In This Series, Visit [www.Jameco.com/Prod/MolexKK100](http://www.Jameco.com/Prod/MolexKK100)

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## molex KK® Series .100" (2.54mm) Pitch Crimp Terminal Housing

### High Pressure

- Voltage: 250V
- Current: 2.5A
- Contact resistance: 20mΩ max.
- Dielectric withstanding voltage: 1500VAC
- Insulation resistance: 500k MΩ min.
- Housing: white nylon, UL04V-0

Lower \$\$\$



516226

\* Prepackaged: please order in increments of 10

| Part No. | Product No. | Positions | 1         | 10      | 100     |
|----------|-------------|-----------|-----------|---------|---------|
| 516218   | 10-11-2023  | 2         | ..... *   | \$ .069 | \$ .065 |
| 516226   | 10-11-2033  | 3         | ..... .20 | .088    | .084    |
| 516234   | 10-11-2043  | 4         | ..... .20 | .124    | .12     |
| 516242   | 10-11-2053  | 5         | ..... .26 | .247    | .171    |
| 516251   | 10-11-2063  | 6         | ..... .20 | .185    | .176    |
| 516277   | 10-11-2083  | 8         | ..... .30 | .28     | .25     |
| 516293   | 10-11-2103  | 10        | ..... .36 | .30     | .296    |
| 516314   | 10-11-2123  | 12        | ..... .54 | .418    | .40     |

## molex C-Grid™ .100" (2.54mm) Pitch Breakaway Headers

- Voltage: 250V
- Current: 3A
- Height: .220"
- Contact resistance: 15mΩ max.
- Contacts: phosphor bronze
- Dielectric w/standing voltage: 1500V
- Insulation resistance: 1000MΩ min.



514466

### High Profile .220"H, Dual Row, Right Angle

| Part No. | Product No. | Positions | 1            | 10     | 100    |
|----------|-------------|-----------|--------------|--------|--------|
| 514095   | 10-89-4042  | 4         | ..... \$ .63 | \$ .60 | \$ .57 |
| 514301   | 10-89-4062  | 6         | ..... .82    | .78    | .74    |
| 514431   | 10-89-4082  | 8         | ..... .98    | .93    | .88    |
| 513720   | 10-89-4106  | 10        | ..... 1.55   | 1.46   | 1.39   |
| 513754   | 10-89-4146  | 14        | ..... 2.05   | 1.95   | 1.86   |
| 513762   | 10-89-4162  | 16        | ..... 1.69   | 1.58   | 1.50   |
| 513789   | 10-89-4182  | 18        | ..... 1.95   | 1.81   | 1.72   |
| 513800   | 10-89-4202  | 20        | ..... 1.99   | 1.90   | 1.81   |
| 513842   | 10-89-4242  | 24        | ..... 2.45   | 2.31   | 2.20   |
| 513869   | 10-89-4262  | 26        | ..... 2.65   | 2.48   | 2.32   |
| 513906   | 10-89-4302  | 30        | ..... 3.15   | 3.00   | 2.86   |
| 513949   | 10-89-4342  | 34        | ..... 3.45   | 3.27   | 3.11   |
| 514001   | 10-89-4406  | 40        | ..... 6.05   | 5.72   | 5.45   |
| 514183   | 10-89-4566  | 56        | ..... 8.05   | 7.65   | 7.28   |
| 514280   | 10-89-4682  | 68        | ..... 6.69   | 6.38   | 6.08   |

### Dual Row, Vertical, High Temperature

| Part No. | Cross Ref. | Positions | 1            | 10      | 100     |
|----------|------------|-----------|--------------|---------|---------|
| 514600   | 10-89-7042 | 4         | ..... \$ .24 | \$ .209 | \$ .186 |
| 514618   | 10-89-7062 | 6         | ..... .34    | .295    | .239    |
| 514651   | 10-89-7082 | 8         | ..... .46    | .399    | .319    |
| 514466   | 10-89-7102 | 10        | ..... .65    | .57     | .421    |
| 514503   | 10-89-7142 | 14        | ..... .92    | .82     | .59     |
| 514520   | 10-89-7162 | 16        | ..... 1.15   | 1.01    | .73     |
| 514546   | 10-89-7202 | 20        | ..... 1.38   | 1.21    | .87     |
| 514554   | 10-89-7242 | 24        | ..... 1.99   | 1.74    | 1.25    |
| 514571   | 10-89-7302 | 30        | ..... 2.09   | 1.82    | 1.30    |
| 514589   | 10-89-7342 | 34        | ..... 2.35   | 2.06    | 1.47    |
| 514597   | 10-89-7402 | 40        | ..... 2.79   | 2.49    | 1.77    |
| 514634   | 10-89-7802 | 80        | ..... 6.35   | 5.53    | 3.96    |

## JAMECO ValuePro .100" (2.54mm) IDC Headers

- Housing: UL94V-0 rated, polyester, natural color



Fig. 1 (347266)



Fig. 2 (347371)



Fig. 3 (347442)



Fig. 4 (347531)



Fig. 5 (348074)



Fig. 6 (348251)

### Narrow Flat Headers

- Posts: copper alloy, tin plated
- Base dimensions: 0.092"W x 0.1"H

Quantity SAVE

Lower \$\$\$

### Straight Post – Tin Plated

| Part No. | Cross Ref. | Fig. | Pos.  | 1      | 10      | 100     |
|----------|------------|------|-------|--------|---------|---------|
| 347240   | 644456-2   | 2    | ..... | \$ .20 | \$ .136 | \$ .099 |
| 347258   | 644456-3   | 3    | ..... | .20    | .111    | .083    |
| 347266   | 644456-4   | 4    | ..... | .22    | .205    | .153    |
| 347274   | 644456-5   | 5    | ..... | .20    | .182    | .137    |
| 347282   | 644456-6   | 6    | ..... | .20    | .182    | .137    |
| 347291   | 644456-7   | 7    | ..... | .28    | .269    | .201    |
| 347303   | 644456-8   | 8    | ..... | .41    | .328    | .246    |
| 347311   | 644456-9   | 9    | ..... | .37    | .339    | .254    |
| 347320   | 1-644456-0 | 10   | ..... | .41    | .379    | .284    |

### Straight Post w/ Retentive Leg – Tin Plated

| Part No. | Cross Ref. | Fig. | Pos.  | 1      | 10      | 100     |
|----------|------------|------|-------|--------|---------|---------|
| 347338   | 644695-2   | 2    | ..... | \$ .20 | \$ .112 | \$ .084 |
| 347346   | 644695-3   | 3    | ..... | .20    | .118    | .088    |
| 347354   | 644695-4   | 4    | ..... | .20    | .182    | .136    |
| 347362   | 644695-5   | 5    | ..... | .23    | .22     | .165    |
| 347371   | 644695-6   | 6    | ..... | .29    | .248    | .186    |
| 347389   | 644695-7   | 7    | ..... | .29    | .288    | .216    |
| 347397   | 644695-8   | 8    | ..... | .36    | .332    | .248    |
| 347400   | 644695-9   | 9    | ..... | .37    | .368    | .276    |
| 347418   | 1-644695-0 | 10   | ..... | .41    | .409    | .307    |

### Right Angle Post – Tin Plated

| Part No. | Cross Ref. | Fig. | Pos.  | 1      | 10      | 100     |
|----------|------------|------|-------|--------|---------|---------|
| 347426   | 644457-2   | 3    | ..... | \$ .20 | \$ .103 | \$ .077 |
| 347434   | 644457-3   | 3    | ..... | .20    | .134    | .10     |
| 347442   | 644457-4   | 3    | ..... | .20    | .174    | .13     |
| 347451   | 644457-5   | 3    | ..... | .20    | .189    | .141    |
| 347469   | 644457-6   | 3    | ..... | .31    | .30     | .225    |
| 347477   | 644457-7   | 3    | ..... | .99    | .98     | .74     |
| 347485   | 644457-8   | 3    | ..... | .42    | .39     | .292    |
| 347493   | 644457-9   | 3    | ..... | .39    | .355    | .266    |
| 347506   | 1-644457-0 | 3    | ..... | .53    | .489    | .366    |

### Narrow Flat Headers (Continued)

#### Right Angle Post w/ Retentive Leg – Tin Plated

| Part No. | Cross Ref. | Fig. | Pos.  | 1      | 10      | 100     |
|----------|------------|------|-------|--------|---------|---------|
| 347514   | 644694-2   | 4    | ..... | \$ .20 | \$ .102 | \$ .077 |
| 347522   | 644694-3   | 4    | ..... | .21    | .125    | .122    |
| 347531   | 644694-4   | 4    | ..... | .21    | .182    | .137    |
| 347549   | 644694-5   | 4    | ..... | .24    | .204    | .153    |
| 347557   | 644694-6   | 4    | ..... | .26    | .221    | .166    |
| 347565   | 644694-7   | 4    | ..... | .30    | .255    | .191    |
| 347573   | 644694-8   | 4    | ..... | .34    | .289    | .217    |
| 347581   | 644694-9   | 4    | ..... | .39    | .332    | .249    |
| 347590   | 1-644694-0 | 4    | ..... | .43    | .366    | .275    |

### Friction Lock Headers

- Posts: copper alloy, gold over nickel plated

#### Straight Post – Gold Plated

| Part No. | Cross Ref. | Fig. | Pos.  | 1      | 10      | 100     |
|----------|------------|------|-------|--------|---------|---------|
| 348058   | 641215-2   | 5    | ..... | \$ .37 | \$ .304 | \$ .276 |
| 348066   | 641215-3   | 5    | ..... | \$ .42 | .24     | .175    |
| 348074   | 641215-4   | 5    | ..... | .52    | .442    | .332    |
| 348091   | 641215-6   | 5    | ..... | .74    | .68     | .65     |
| 348103   | 641215-7   | 5    | ..... | .82    | .70     | .523    |
| 348111   | 641215-8   | 5    | ..... | .50    | .495    | .492    |
| 348120   | 641215-9   | 5    | ..... | 1.34   | 1.14    | .85     |

#### Right Angle Post – Gold Plated

| Part No. | Cross Ref. | Fig. | Pos.  | 1      | 10     | 100     |
|----------|------------|------|-------|--------|--------|---------|
| 348234   | 641216-2   | 6    | ..... | \$ .56 | \$ .48 | \$ .357 |
| 348242   | 641216-3   | 6    | ..... | \$ .78 | .59    | .46     |
| 348251   | 641216-4   | 6    | ..... | .95    | .81    | .61     |
| 348269   | 641216-5   | 6    | ..... | .82    | .70    | .523    |
| 348277   | 641216-6   | 6    | ..... | 1.25   | 1.06   | .80     |
| 348285   | 641216-7   | 6    | ..... | 1.29   | 1.10   | .82     |
| 348306   | 641216-9   | 6    | ..... | 1.45   | 1.23   | .93     |

Save Big! Special Values!

New Lower Prices = Orange  
Exceptional Quantity Discounts = Green

## AMP

## MTA-100 (.100") Solid Headers

- 0.025" square posts
- Tin-plated
- Housing: nylon UL94V-0 rated, white polyester
- Posts: copper alloy, tin plated

### Straight Friction Lock

| Part No. | Product No. | Positions | 1            | 10      | 100     |
|----------|-------------|-----------|--------------|---------|---------|
| 613931   | 640456-2    | 2         | ..... \$ .20 | \$ .059 | \$ .049 |
| 613940   | 640456-3    | 3         | ..... .20    | .079    | .075    |
| 613958   | 640456-4    | 4         | ..... .20    | .105    | .099    |
| 613966   | 640456-5    | 5         | ..... .20    | .115    | .109    |
| 613974   | 640456-6    | 6         | ..... .20    | .131    | .115    |
| 613982   | 640456-7    | 7         | ..... .20    | .12     | .11     |
| 613991   | 640456-8    | 8         | ..... .20    | .174    | .154    |

Straight

Right Angle

### Right Angle Friction Lock

| Part No. | Product No. | Positions | 1            | 10     | 100    |
|----------|-------------|-----------|--------------|--------|--------|
| 524859   | 640457-2    | 2         | ..... \$ .20 | \$ .10 | \$ .08 |
| 524867   | 640457-3    | 3         | ..... .20    | .071   | .052   |
| 524875   | 640457-4    | 4         | ..... .20    | .072   | .068   |
| 524883   | 640457-5    | 5         | ..... .20    | .089   | .083   |
| 524891   | 640457-6    | 6         | ..... .20    | .098   | .094   |

Committed to You

We're committed to providing you with the best service in the industry.

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product ♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

**AMP**

## MTA-100 (.100") IDC Connectors

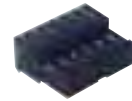
- Voltage rating: 250VAC
- Low-level resistance: 6mΩ max. initial
- Insulation resistance: 50KΩ min.

\* Prepackaged: please order in increments of 5

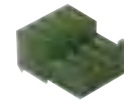
**NEW**

**Lower \$\$\$**

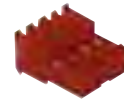
- Current rating: 5A
- Dielectric withstand: 750VAC/1 min.
- Contacts: phosphor bronze, tin-plated



854671  
Closed-End Style  
w/o Polarizing Tab



756537  
Closed-End Style  
w/ Polarizing Tab



923180  
Feed-Thru Style  
w/o Polarizing Tab




756810  
Feed-Thru Style  
w/ Polarizing Tab


### Closed-End Style

#### Without Polarizing Tabs w/ Locking Ramp

| Part No. | Product No. | Pos. | AWG | Color      | 1    | 5       |
|----------|-------------|------|-----|------------|------|---------|
| 524699   | 640440-2♣   | 2    | 22  | Red.....   | *    | \$ .107 |
| 750830   | 3-640440-2♣ | 2    | 22  | Red.....   | *    | .088    |
| 524701   | 640440-3♣   | 3    | 22  | Red.....   | *    | .115    |
| 750848   | 3-640440-3♣ | 3    | 22  | Red.....   | *    | .107    |
| 524710   | 640440-4♣   | 4    | 22  | Red.....   | *    | .155    |
| 841598   | 3-640440-4♣ | 4    | 22  | Red.....   | *    | .148    |
| 524728   | 640440-5♣   | 5    | 22  | Red.....   | *    | .204    |
| 750856   | 3-640440-5♣ | 5    | 22  | Red.....   | *    | .184    |
| 524736   | 640440-6♣   | 6    | 22  | Red.....   | *    | .213    |
| 750864   | 3-640440-6♣ | 6    | 22  | Red.....   | *    | .204    |
| 524744   | 640440-7♣   | 7    | 22  | Red.....   | *    | .233    |
| 750872   | 3-640440-7♣ | 7    | 22  | Red.....   | *    | .233    |
| 524752   | 640440-8♣   | 8    | 22  | Red.....   | *    | .281    |
| 750881   | 3-640440-8♣ | 8    | 22  | Red.....   | *    | .262    |
| 854591   | 640440-9♣   | 9    | 22  | Red.....   | *    | .446    |
| 524672   | 1-640440-0♣ | 10   | 22  | Red.....   | *    | .35     |
| 944520   | 4-640440-0♣ | 10   | 22  | Red.....   | *    | .446    |
| 890648   | 1-640440-1♣ | 11   | 22  | Red.....   | 1.29 | 1.09    |
| 524681   | 1-640440-2♣ | 12   | 22  | Red.....   | *    | .45     |
| 944562   | 4-640440-2♣ | 12   | 22  | Red.....   | .62  | .58     |
| 890672   | 1-640440-3♣ | 13   | 22  | Red.....   | .89  | .75     |
| 741811   | 1-640440-4♣ | 14   | 22  | Red.....   | 1.19 | 1.09    |
| 741829   | 1-640440-5♣ | 15   | 22  | Red.....   | .85  | .75     |
| 741837   | 1-640440-6♣ | 16   | 22  | Red.....   | 1.29 | 1.19    |
| 890728   | 1-640440-7♣ | 17   | 22  | Red.....   | 2.75 | 2.59    |
| 910961   | 2-640440-0♣ | 20   | 22  | Red.....   | 2.99 | 2.75    |
| 524761   | 640441-2♣   | 2    | 24  | White..... | *    | .088    |
| 750899   | 3-640441-2♣ | 2    | 24  | White..... | *    | .087    |
| 524779   | 640441-3♣   | 3    | 24  | White..... | *    | .113    |
| 922814   | 3-640441-3♣ | 3    | 24  | White..... | *    | .107    |
| 524787   | 640441-4♣   | 4    | 24  | White..... | *    | .114    |
| 750901   | 3-640441-4♣ | 4    | 24  | White..... | *    | .107    |
| 524795   | 640441-5♣   | 5    | 24  | White..... | *    | .204    |
| 750910   | 3-640441-5♣ | 5    | 24  | White..... | *    | .184    |
| 524808   | 640441-6♣   | 6    | 24  | White..... | *    | .213    |
| 750928   | 3-640441-6♣ | 6    | 24  | White..... | *    | .204    |
| 755930   | 640441-7♣   | 7    | 24  | White..... | *    | .243    |
| 750936   | 3-640441-7♣ | 7    | 24  | White..... | *    | .236    |
| 524816   | 640441-8♣   | 8    | 24  | White..... | *    | .281    |
| 922849   | 3-640441-8♣ | 8    | 24  | White..... | *    | .267    |
| 965216   | 640441-9♣   | 9    | 24  | White..... | 1.05 | .95     |
| 741845   | 1-640441-0♣ | 10   | 24  | White..... | *    | .359    |
| 944600   | 4-640441-0♣ | 10   | 24  | White..... | *    | .34     |
| 741853   | 1-640441-2♣ | 12   | 24  | White..... | *    | .446    |
| 944642   | 4-640441-2♣ | 12   | 24  | White..... | .62  | .57     |
| 944685   | 4-640441-5♣ | 15   | 24  | White..... | .99  | .94     |
| 524824   | 640442-2♣   | 2    | 26  | Blue.....  | *    | .11     |
| 750944   | 3-640442-2♣ | 2    | 26  | Blue.....  | *    | .087    |
| 854621   | 640442-3♣   | 3    | 26  | Blue.....  | *    | .113    |
| 750952   | 3-640442-3♣ | 3    | 26  | Blue.....  | *    | .107    |
| 524832   | 640442-4♣   | 4    | 26  | Blue.....  | *    | .15     |
| 750961   | 3-640442-4♣ | 4    | 26  | Blue.....  | *    | .146    |
| 854647   | 640442-5♣   | 5    | 26  | Blue.....  | *    | .204    |
| 922873   | 3-640442-5♣ | 5    | 26  | Blue.....  | *    | .186    |
| 854671   | 640442-6♣   | 6    | 26  | Blue.....  | *    | .204    |
| 922902   | 3-640442-6♣ | 6    | 26  | Blue.....  | *    | .204    |
| 755948   | 640442-7♣   | 7    | 26  | Blue.....  | *    | .252    |
| 922945   | 3-640442-7♣ | 7    | 26  | Blue.....  | *    | .27     |
| 854701   | 640442-8♣   | 8    | 26  | Blue.....  | *    | .281    |
| 922961   | 3-640442-8♣ | 8    | 26  | Blue.....  | *    | .26     |

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

 RoHS compliant product

 This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.

### Closed-End Style

#### Without Polarizing Tabs w/ Locking Ramp (Cont.)

| Part No.                                       | Product No. | Pos. | AWG | Color      | 1      | 5       |
|--|-------------|------|-----|------------|--------|---------|
| 965232   | 640442-9♣   | 9    | 26  | Blue.....  | \$1.05 | \$ .95  |
| 741861   | 1-640442-0♣ | 10   | 26  | Blue.....  | *      | .349    |
| 944722   | 4-640442-2♣ | 12   | 26  | Blue.....  | .59    | .52     |
| <b>With Polarizing Tabs &amp; Locking Ramp</b> |             |      |     |            |        |         |
| Part No.                                       | Product No. | Pos. | AWG | Color      | 1      | 5       |
| 858082   | 643813-2♣   | 2    | 22  | Red.....   | *      | \$ .126 |
| 751138   | 3-643813-2♣ | 2    | 22  | Red.....   | *      | .087    |
| 751146   | 3-643813-3♣ | 3    | 22  | Red.....   | *      | .10     |
| 858111   | 643813-4♣   | 4    | 22  | Red.....   | *      | .155    |
| 751154   | 3-643813-4♣ | 4    | 22  | Red.....   | *      | .146    |
| 751162   | 3-643813-5♣ | 5    | 22  | Red.....   | *      | .184    |
| 858146   | 643813-6♣   | 6    | 22  | Red.....   | *      | .30     |
| 751171   | 3-643813-6♣ | 6    | 22  | Red.....   | .63    | .56     |
| 858171   | 643813-7♣   | 7    | 22  | Red.....   | *      | .252    |
| 751189   | 3-643813-8♣ | 8    | 22  | Red.....   | *      | .267    |
| 966518   | 643813-9♣   | 9    | 22  | Red.....   | 1.05   | .93     |
| 742194   | 1-643813-0♣ | 10   | 22  | Red.....   | *      | .349    |
| 944802   | 4-643813-0♣ | 10   | 22  | Red.....   | *      | .33     |
| 890841   | 1-643813-2♣ | 12   | 22  | Red.....   | .69    | .55     |
| 944845   | 4-643813-2♣ | 12   | 22  | Red.....   | .63    | .57     |
| 890875   | 1-643813-4♣ | 14   | 22  | Red.....   | 2.79   | 2.09    |
| 890904   | 1-643813-5♣ | 15   | 22  | Red.....   | 1.15   | .91     |
| 742207   | 1-643813-6♣ | 16   | 22  | Red.....   | 2.69   | 1.99    |
| 756465   | 643814-2♣   | 2    | 24  | White..... | *      | .094    |
| 923366   | 3-643814-2♣ | 2    | 24  | White..... | *      | .098    |
| 858200   | 643814-3♣   | 3    | 24  | White..... | *      | .107    |
| 751197   | 3-643814-3♣ | 3    | 24  | White..... | *      | .107    |
| 858251   | 643814-4♣   | 4    | 24  | White..... | *      | .154    |
| 923382   | 3-643814-4♣ | 4    | 24  | White..... | *      | .147    |
| 858285   | 643814-5♣   | 5    | 24  | White..... | *      | .204    |
| 751200   | 3-643814-5♣ | 5    | 24  | White..... | *      | .191    |
| 858314   | 643814-6♣   | 6    | 24  | White..... | *      | .213    |
| 923403   | 3-643814-6♣ | 6    | 24  | White..... | *      | .24     |
| 923420   | 3-643814-7♣ | 7    | 24  | White..... | *      | .24     |
| 756473   | 643814-8♣   | 8    | 24  | White..... | *      | .341    |
| 923446   | 3-643814-8♣ | 8    | 24  | White..... | *      | .26     |
| 746347   | 1-643814-0♣ | 10   | 24  | White..... | *      | .359    |
| 944870   | 4-643814-0♣ | 10   | 24  | White..... | *      | .33     |
| 890947   | 1-643814-2♣ | 12   | 24  | White..... | .69    | .55     |
| 944917   | 4-643814-2♣ | 12   | 24  | White..... | .63    | .56     |
| 858349   | 643815-2♣   | 2    | 26  | Blue.....  | *      | .094    |
| 751218   | 3-643815-2♣ | 2    | 26  | Blue.....  | *      | .097    |
| 923462   | 3-643815-3♣ | 3    | 26  | Blue.....  | *      | .10     |
| 756481   | 643815-4♣   | 4    | 26  | Blue.....  | *      | .155    |
| 751226   | 3-643815-4♣ | 4    | 26  | Blue.....  | *      | .146    |
| 858373   | 643815-5♣   | 5    | 26  | Blue.....  | *      | .204    |
| 923489   | 3-643815-5♣ | 5    | 26  | Blue.....  | *      | .187    |
| 858402   | 643815-6♣   | 6    | 26  | Blue.....  | *      | .213    |
| 923500   | 3-643815-6♣ | 6    | 26  | Blue.....  | *      | .20     |
| 756502   | 643815-7♣   | 7    | 26  | Blue.....  | *      | .252    |
| 923526   | 3-643815-7♣ | 7    | 26  | Blue.....  | *      | .31     |
| 923542   | 3-643815-8♣ | 8    | 26  | Blue.....  | *      | .26     |
| 944950   | 4-643815-0♣ | 10   | 26  | Blue.....  | *      | .44     |
| 756529   | 643816-2♣   | 2    | 28  | Green..... | *      | .094    |
| 923569   | 3-643816-2♣ | 2    | 28  | Green..... | *      | .09     |
| 756537   | 643816-4♣   | 4    | 28  | Green..... | *      | .155    |
| 756553   | 643816-6♣   | 6    | 28  | Green..... | *      | .213    |

### Feed-Thru Style

#### Without Polarizing Tabs w/ Locking Ramp

| Part No. | Product No. | Pos. | AWG | Color      | 1 | 5       |
|----------|-------------|------|-----|------------|---|---------|
| 756027   | 640620-3♣   | 3    | 22  | Red.....   | * | \$ .146 |
| 923163   | 3-640620-3♣ | 3    | 22  | Red.....   | * | .146    |
| 923180   | 3-640620-4♣ | 4    | 22  | Red.....   | * | .147    |
| 855789   | 640620-5♣   | 5    | 22  | Red.....   | * | .204    |
| 756035   | 640620-6♣   | 6    | 22  | Red.....   | * | .213    |
| 923201   | 3-640620-6♣ | 6    | 22  | Red.....   | * | .267    |
| 923227   | 3-640620-8♣ | 8    | 22  | Red.....   | * | .34     |
| 756043   | 640621-2♣   | 2    | 24  | White..... | * | .155    |
| 923243   | 3-640621-3♣ | 3    | 24  | White..... | * | .137    |
| 756051   | 640621-4♣   | 4    | 24  | White..... | * | .155    |

#### With Polarizing Tabs & Locking Ramp

| Part No. | Product No. | Pos. | AWG | Color      | 1 | 5       |
|----------|-------------|------|-----|------------|---|---------|
| 756799   | 644540-8♣   | 8    | 22  | Red.....   | * | \$ .281 |
| 756810   | 644563-4♣   | 4    | 24  | White..... | * | .155    |

**AMP**

More AMP MTA-100  
IDC Connectors at  
[www.Jameco.com](http://www.Jameco.com)

**AMP**

## MTA-100 (.100") Strain Relief Covers

- Closed End
- UL94V-2 rated, white nylon
- Dust cover: UL94V-0 rated, white polyester



| Part No. | Product No. | Positions | 1      | 10      | 100     |
|----------|-------------|-----------|--------|---------|---------|
| 525149   | 643075-2♣   | 2.....    | \$ .23 | \$ .176 | \$ .168 |
| 525157   | 643075-4♣   | 4.....    | .29    | .276    | .22     |
| 525165   | 643075-5♣   | 5.....    | .69    | .66     | .64     |
| 525173   | 643075-6♣   | 6.....    | .21    | .20     | .19     |

JAMECO  
ValuePro

## .100" (2.54mm) Strain Relief Covers

326051  
(Fig. 1)



326123  
(Fig. 2)



### Closed-End Style

| Part No. | Cross Ref.  | Fig. | Pos.    | 1      | 10      | 100     |
|----------|-------------|------|---------|--------|---------|---------|
| 326019   | 643075-2♣   | 1    | 2.....  | \$ .20 | \$ .142 | \$ .107 |
| 326035   | 643075-4♣   | 1    | 4.....  | .21    | .153    | .114    |
| 326043   | 643075-5♣   | 1    | 5.....  | .23    | .198    | .148    |
| 326051   | 643075-6♣   | 1    | 6.....  | .20    | .15     | .113    |
| 326060   | 643075-7♣   | 1    | 7.....  | .23    | .213    | .159    |
| 326078   | 643075-8♣   | 1    | 8.....  | .54    | .46     | .345    |
| 326086   | 643075-9♣   | 1    | 9.....  | .57    | .484    | .363    |
| 326094   | 1-643075-0♣ | 1    | 10..... | .59    | .331    | .248    |

### Feed-Thru Style

| Part No. | Cross Ref. | Fig. | Pos.     | 1     | 10    | 100    |
|----------|------------|------|----------|-------|-------|--------|
| 326107   | 643077-2   | 2    | 2 .....  | \$.25 | \$.23 | \$.172 |
| 326115   | 643077-3   | 2    | 3 .....  | .20   | .111  | .083   |
| 326123   | 643077-4   | 2    | 4 .....  | .20   | .119  | .089   |
| 326131   | 643077-5   | 2    | 5 .....  | .35   | .30   | .225   |
| 326158   | 643077-7   | 2    | 7 .....  | .45   | .382  | .286   |
| 326174   | 643077-9   | 2    | 9 .....  | .57   | .485  | .363   |
| 326182   | 1-643077-0 | 2    | 10 ..... | .59   | .501  | .375   |



## JAMECO ValuePro

### .100" (2.54mm) IDC Connectors

- Voltage rating: 250VAC
- Current rating: 4A max.
- Low-level resistance: 5mΩ max. initial
- Dielectric withstanding voltage: 750VAC/1 min.
- Insulation resistance: 5000MΩ min. initial
- \*Prepackaged: please order in increments of 10



#### Closed-End Style

Quantity SAVE

Lower \$\$\$

#### Feed-Thru Style

##### Without Polarizing Tabs

| Part No. | Cross Ref. | Pos. | AWG | Color | 1   | 10     | 100                      |
|----------|------------|------|-----|-------|-----|--------|--------------------------|
| 345658   | 640440-7   | 7    | 22  | Red   | ... | \$ .20 | \$ .168 <b>(\$ .126)</b> |
| 345666   | 640440-8   | 8    | 22  | Red   | ... | .23    | .179 <b>(.134)</b>       |
| 345674   | 640440-9   | 9    | 22  | Red   | ... | .29    | .247 <b>(.185)</b>       |
| 345746   | 640441-7   | 7    | 24  | White | ... | .20    | .17 <b>(.127)</b>        |
| 345754   | 640441-8   | 8    | 24  | White | ... | .26    | .221 <b>(.166)</b>       |
| 345762   | 640441-9   | 9    | 24  | White | ... | .29    | .199 <b>(.149)</b>       |
| 345771   | 1-640441-0 | 10   | 24  | White | ... | .29    | .246 <b>(.184)</b>       |

##### With Polarizing Tabs

| Part No. | Cross Ref. | Pos. | AWG | Color | 1   | 10     | 100                    |
|----------|------------|------|-----|-------|-----|--------|------------------------|
| 345965   | 643813-2   | 2    | 22  | Red   | ... | \$ .20 | \$ .11 <b>(\$ .10)</b> |
| 345973   | 643813-3   | 3    | 22  | Red   | ... | .21    | .12 <b>(\$ .11)</b>    |
| 345981   | 643813-4   | 4    | 22  | Red   | ... | .20    | .123 <b>(.092)</b>     |
| 345990   | 643813-5   | 5    | 22  | Red   | ... | *      | .156 <b>(.117)</b>     |
| 346001   | 643813-6   | 6    | 22  | Red   | ... | .24    | .174 <b>(.13)</b>      |
| 346010   | 643813-7   | 7    | 22  | Red   | ... | .20    | .189 <b>(.141)</b>     |
| 346028   | 643813-8   | 8    | 22  | Red   | ... | .23    | .195 <b>(.146)</b>     |
| 346036   | 643813-9   | 9    | 22  | Red   | ... | .29    | .28 <b>(.27)</b>       |
| 346044   | 1-643813-0 | 10   | 22  | Red   | ... | .29    | .246 <b>(.184)</b>     |
| 346087   | 643814-5   | 5    | 24  | White | ... | .20    | .166 <b>(.12)</b>      |
| 346095   | 643814-6   | 6    | 24  | White | ... | .20    | .174 <b>(.134)</b>     |
| 346108   | 643814-7   | 7    | 24  | White | ... | .20    | .189 <b>(.142)</b>     |
| 346116   | 643814-8   | 8    | 24  | White | ... | .23    | .213 <b>(.159)</b>     |
| 346132   | 1-643814-0 | 10   | 24  | White | ... | .32    | .264 <b>(.198)</b>     |



#### T-Handle Tool

- For .100" (2.54mm) IDC connectors



| Part No. | Product No. | Description     | Price   |
|----------|-------------|-----------------|---------|
| 365974   | 59803-1     | .100" hand tool | \$20.89 |

### .118" (3.0mm) Pitch Micro-Fit 3.0™ SMT Connectors

- Solderable fitting nail provides retention to PCB
- Current: 5.0A max.
- Contact: brass
- Voltage: 250V
- Fully polarized to mating receptacle
- Dielectric withstanding voltage: 1500VAC
- Contact resistance: 10mΩ max.
- Insulation resistance: 1000MΩ min.
- Housing: high temperature LCP, UL94V-0



Single Row, Right Angle    Dual Row, Vertical    Dual Row, Right Angle

#### Single Row, Right Angle, Tin

| Part No. | Cross Ref. No. | Pos. | 1   | 10     | 100                  |
|----------|----------------|------|-----|--------|----------------------|
| 338423   | 43650-0212     | 2    | ... | \$2.15 | \$2.00 <b>\$1.65</b> |
| 338458   | 43650-0312     | 3    | ... | 2.35   | 2.27 <b>1.84</b>     |
| 338482   | 43650-0412     | 4    | ... | 3.09   | 2.73 <b>1.82</b>     |
| 338511   | 43650-0512     | 5    | ... | 2.75   | 2.52 <b>2.14</b>     |
| 338546   | 43650-0612     | 6    | ... | 3.19   | 2.88 <b>2.32</b>     |

#### Dual Row, Vertical, Tin

| Part No. | Cross Ref. No. | Pos. | 1   | 10     | 100                  |
|----------|----------------|------|-----|--------|----------------------|
| 337949   | 43045-0218     | 2    | ... | \$2.15 | \$1.91 <b>\$1.66</b> |
| 338028   | 43045-0418     | 4    | ... | 2.49   | 2.37 <b>2.04</b>     |
| 338095   | 43045-0618     | 6    | ... | 3.55   | 3.32 <b>2.46</b>     |
| 338159   | 43045-0818     | 8    | ... | 3.25   | 2.85 <b>2.46</b>     |
| 338191   | 43045-1018     | 10   | ... | 3.55   | 3.32 <b>2.75</b>     |

#### Dual Row, Right Angle, Tin

| Part No. | Cross Ref. No. | Pos. | 1   | 10     | 100                  |
|----------|----------------|------|-----|--------|----------------------|
| 337906   | 43045-0209     | 2    | ... | \$2.15 | \$1.92 <b>\$1.69</b> |
| 337981   | 43045-0409     | 4    | ... | 2.65   | 2.37 <b>1.99</b>     |
| 338061   | 43045-0609     | 6    | ... | 3.05   | 2.84 <b>2.27</b>     |

#### Single Row, Right Angle, Gold

| Part No. | Cross Ref. No. | Pos. | 1   | 10     | 100                  |
|----------|----------------|------|-----|--------|----------------------|
| 338415   | 43650-0210     | 2    | ... | \$1.99 | \$1.81 <b>\$1.62</b> |
| 338440   | 43650-0310     | 3    | ... | 2.65   | 2.35 <b>2.02</b>     |
| 338474   | 43650-0410     | 4    | ... | 2.95   | 2.89 <b>2.24</b>     |
| 338503   | 43650-0510     | 5    | ... | 3.15   | 2.89 <b>2.42</b>     |
| 338538   | 43650-0610     | 6    | ... | 3.45   | 2.99 <b>2.62</b>     |

#### Dual Row, Vertical, 30μ" Gold

| Part No. | Cross Ref. No. | Pos. | 1   | 10     | 100                  |
|----------|----------------|------|-----|--------|----------------------|
| 337957   | 43045-0220     | 2    | ... | \$2.65 | \$2.36 <b>\$2.08</b> |
| 338036   | 43045-0420     | 4    | ... | 2.29   | 2.09 <b>2.05</b>     |
| 338108   | 43045-0620     | 6    | ... | 3.69   | 3.29 <b>2.89</b>     |
| 338204   | 43045-1020     | 10   | ... | 4.85   | 4.35 <b>3.79</b>     |

#### Dual Row, Right Angle, 30μ" Gold

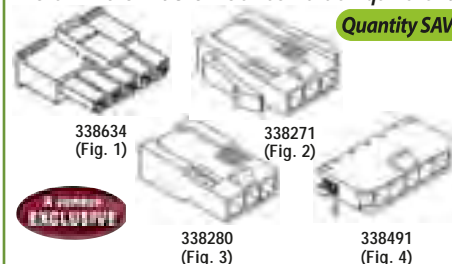
| Part No. | Cross Ref. No. | Pos. | 1   | 10     | 100                  |
|----------|----------------|------|-----|--------|----------------------|
| 337914   | 43045-0211     | 2    | ... | \$2.85 | \$2.49 <b>\$2.14</b> |
| 337990   | 43045-0411     | 4    | ... | 3.55   | 3.32 <b>2.61</b>     |
| 338124   | 43045-0811     | 8    | ... | 3.05   | 2.76 <b>2.60</b>     |

## JAMECO ValuePro

### .118" (3.0mm) Single Row Micro-Fit Connectors

#### Molex Micro-Fit 3.0™ Series Value Equivalents

Quantity SAVE



#### Single Row Crimp Housing

- Positive latching to mating headers or plugs
- Fully isolated contacts
- Wire to wire
- Integral pull tabs for ease in unmating
- Receptacle mates with 43640 and 43650 series

#### Receptacles (Fig. 1)

| Part No. | Cross Ref. No. | Positions | 1   | 10     | 100                      |
|----------|----------------|-----------|-----|--------|--------------------------|
| 338351   | 43645-0200     | 2         | ... | \$ .20 | \$ .166 <b>(\$ .152)</b> |
| 338360   | 43645-0300     | 3         | ... | .20    | .17 <b>(.128)</b>        |
| 338378   | 43645-0400     | 4         | ... | .21    | .179 <b>(.134)</b>       |
| 338634   | 43645-0500     | 5         | ... | .23    | .196 <b>(.147)</b>       |
| 338386   | 43645-0600     | 6         | ... | .26    | .221 <b>(.166)</b>       |

#### Plugs – Panel Mount (Fig. 2)

| Part No. | Cross Ref. No. | Positions | 1   | 10     | 100                     |
|----------|----------------|-----------|-----|--------|-------------------------|
| 338255   | 43640-0200     | 2         | ... | \$ .20 | \$ .17 <b>(\$ .128)</b> |
| 338271   | 43640-0300     | 3         | ... | .23    | .196 <b>(.147)</b>      |
| 338298   | 43640-0400     | 4         | ... | .32    | .272 <b>(.204)</b>      |
| 338319   | 43640-0500     | 5         | ... | .35    | .298 <b>(.224)</b>      |
| 338335   | 43640-0600     | 6         | ... | .38    | .349 <b>(.262)</b>      |

#### Plugs – Free Hanging (Fig. 3)

| Part No. | Cross Ref. No. | Positions | 1   | 10     | 100                      |
|----------|----------------|-----------|-----|--------|--------------------------|
| 338263   | 43640-0201     | 2         | ... | \$ .20 | \$ .162 <b>(\$ .122)</b> |
| 338280   | 43640-0301     | 3         | ... | .20    | .162 <b>(.122)</b>       |
| 338301   | 43640-0401     | 4         | ... | .21    | .179 <b>(.134)</b>       |
| 338327   | 43640-0501     | 5         | ... | .50    | .425 <b>(.318)</b>       |
| 338343   | 43640-0601     | 6         | ... | .34    | .298 <b>(.217)</b>       |

#### Single Row PCB Headers

- Snap-in peg locks header to PCB for retention
- Surface mount compatible
- Mates with 43645 series
- Fully polarized to mating receptacle
- Black
- Wire to board

#### Right Angle w/ Snap-In Plastic Peg – Tin (Fig. 4)

| Part No. | Cross Ref. No. | Positions | 1   | 10     | 100                      |
|----------|----------------|-----------|-----|--------|--------------------------|
| 338394   | 43650-0200     | 2         | ... | \$ .39 | \$ .332 <b>(\$ .249)</b> |
| 338431   | 43650-0300     | 3         | ... | .41    | .349 <b>(.262)</b>       |
| 338466   | 43650-0400     | 4         | ... | .43    | .366 <b>(.275)</b>       |
| 338491   | 43650-0500     | 5         | ... | 1.15   | .98 <b>(.73)</b>         |
| 338520   | 43650-0600     | 6         | ... | .99    | .83 <b>(.62)</b>         |

#### Right Angle w/ Snap-In Plastic Peg – 15μ" gold (Fig. 4)

| Part No. | Cross Ref. No. | Positions | 1   | 10     | 100                      |
|----------|----------------|-----------|-----|--------|--------------------------|
| 338407   | 43650-0201     | 2         | ... | \$ .61 | \$ .519 <b>(\$ .389)</b> |
| 338642   | 43650-0301     | 3         | ... | 1.09   | .93 <b>(.69)</b>         |
| 338651   | 43650-0401     | 4         | ... | 1.25   | 1.06 <b>(.79)</b>        |



Find more Molex  
Micro-Fit 3.0™ at  
[www.Jameco.com/Prod/Microfit](http://www.Jameco.com/Prod/Microfit)

## .118" (3.0mm) Dual Row Micro-Fit Connectors

Molex Micro-Fit 3.0™ Series Value Equivalents

**Quantity SAVE**

**Lower \$\$\$**



337691  
(Fig. 1)



337623  
(Fig. 2)



337631  
(Fig. 3)



338044  
(Fig. 4)



338079  
(Fig. 5)

### Double Row Crimp Housing

- Fully isolated contacts
- Housing: UL94V-0
- Voltage/current rating: 250V @ 5.0A (max.)
- Mates with 43020 and 43045 series
- Contact resistance: 10mΩ (max.)
- Contacts: tin or 30μ" gold plating over phosphor bronze
- Wire to wire
- Fully polarized
- Black

\* Prepackaged: please order in increments of 10

### Receptacles (Fig. 1)

| Part No. | Cross Ref. No. | Positions | 1            | 10      | 100         |
|----------|----------------|-----------|--------------|---------|-------------|
| 337666   | 43025-0200     | 2         | ..... *      | \$ .128 | (\$ .096)   |
| 337674   | 43025-0400     | 4         | ..... .24    | .204    | (.153)      |
| 337682   | 43025-0600     | 6         | ..... \$ .26 | .20     | .178 (.158) |
| 337691   | 43025-0800     | 8         | ..... \$ .33 | .22     | .21 (.174)  |
| 337703   | 43025-1000     | 10        | ..... .38    | .326    | (.245)      |
| 337711   | 43025-1200     | 12        | ..... .46    | .388    | (.291)      |
| 337842   | 43025-1600     | 16        | ..... .41    | .349    | (.262)      |
| 337851   | 43025-1800     | 18        | ..... .73    | .62     | (.466)      |
| 337869   | 43025-2000     | 20        | ..... .41    | .349    | (.262)      |
| 337877   | 43025-2400     | 24        | ..... \$ .82 | .62     | .53 (.395)  |

### Plugs – Panel Mount (Fig. 2)

| Part No. | Cross Ref. No. | Positions | 1            | 10      | 100         |
|----------|----------------|-----------|--------------|---------|-------------|
| 337586   | 43020-0200     | 2         | ..... \$ .21 | \$ .179 | (\$ .134)   |
| 337594   | 43020-0400     | 4         | ..... .23    | .196    | (.147)      |
| 337607   | 43020-0600     | 6         | ..... .29    | .247    | (.185)      |
| 337623   | 43020-0800     | 8         | ..... .35    | .298    | (.224)      |
| 337640   | 43020-1000     | 10        | ..... \$ .40 | .31     | .264 (.198) |
| 337826   | 43020-1200     | 12        | ..... \$ .45 | .42     | .357 (.268) |
| 337834   | 43025-1400     | 14        | ..... \$ .49 | .39     | .333 (.25)  |

### Plugs – Free Hanging (Fig. 3)

| Part No. | Cross Ref. No. | Positions | 1            | 10      | 100         |
|----------|----------------|-----------|--------------|---------|-------------|
| 337800   | 43020-0201     | 2         | ..... \$ .22 | \$ .186 | (\$ .14)    |
| 337818   | 43020-0401     | 4         | ..... .29    | .253    | .194        |
| 337615   | 43020-0601     | 6         | ..... .31    | .237    | .20         |
| 337631   | 43020-0801     | 8         | ..... .40    | .34     | (.255)      |
| 337658   | 43020-1001     | 10        | ..... \$ .46 | .26     | .224 (.168) |

### Female & Male Contacts

Type\*:

1: female

2: male

A: tin plating over phosphor bronze

B: 30μ" select gold over nickel over phosphor bronze

Female (1B)

Male (2A)



\* Prepackaged: please order in increments of 10

| Part No. | Cross Ref. No. | AWG   | Type* | 10            | 100     |
|----------|----------------|-------|-------|---------------|---------|
| 337720   | 43030-0007     | 20-24 | 1A    | ..... \$ .094 | \$ .072 |
| 337738   | 43030-0009     | 20-24 | 1B    | ..... .108    | .105    |
| 337746   | 43030-0010     | 26-30 | 1A    | ..... .096    | (.072)  |
| 337754   | 43030-0012     | 26-30 | 1B    | ..... .119    | (.089)  |
| 337762   | 43031-0007     | 20-24 | 2A    | ..... .087    | .065    |
| 337771   | 43031-0009     | 20-24 | 2B    | ..... .135    | .104    |
| 337789   | 43031-0010     | 26-30 | 2A    | ..... .085    | (.064)  |
| 337797   | 43031-0012     | 26-30 | 2B    | ..... .134    | (.101)  |

### Double Row PCB Headers

- Surface mount compatible with PCB polarizing pegs
- Fully polarized to mating receptacle
- Black

### Right Angle w/ Snap-In Plastic Peg – Tin (Fig. 4)

| Part No. | Cross Ref. No. | Positions | 1            | 10      | 100      |
|----------|----------------|-----------|--------------|---------|----------|
| 337885   | 43045-0200     | 2         | ..... \$ .36 | \$ .306 | (\$ .23) |
| 337965   | 43045-0400     | 4         | ..... .52    | .442    | (.332)   |
| 338044   | 43045-0600     | 6         | ..... .56    | .476    | (.357)   |
| 338554   | 43045-0800     | 8         | ..... .70    | .60     | (.45)    |
| 338562   | 43045-1000     | 10        | ..... .78    | .66     | (.497)   |
| 338212   | 43045-1200     | 12        | ..... .89    | .84     | .77      |
| 338571   | 43045-1400     | 14        | ..... 1.09   | .99     | .92      |
| 338597   | 43045-1600     | 16        | ..... 1.25   | 1.06    | (.80)    |
| 338600   | 43045-2000     | 20        | ..... 1.39   | 1.18    | (.88)    |

### Right Angle w/ Snap-In Plastic Peg – Gold (Fig. 4)

| Part No. | Cross Ref. No. | Positions | 1            | 10      | 100       |
|----------|----------------|-----------|--------------|---------|-----------|
| 337893   | 43045-0202     | 2         | ..... \$ .52 | \$ .442 | (\$ .332) |
| 337973   | 43045-0402     | 4         | ..... .69    | .59     | (.44)     |
| 338052   | 43045-0602     | 6         | ..... 1.01   | .86     | .65       |
| 338116   | 43045-0802     | 8         | ..... 1.05   | .89     | (.67)     |
| 338167   | 43045-1002     | 10        | ..... 1.25   | 1.06    | (.80)     |
| 338221   | 43045-1202     | 12        | ..... 1.39   | 1.18    | (.89)     |
| 338589   | 43045-1402     | 14        | ..... 1.59   | 1.35    | (1.01)    |
| 338618   | 43045-2202     | 22        | ..... 2.39   | 2.03    | (1.52)    |
| 338626   | 43045-2402     | 24        | ..... 5.99   | 5.09    | (3.80)    |

### Vertical Thru Hole – Tin (Fig. 5)

| Part No. | Cross Ref. No. | Positions | 1            | 10      | 100     |
|----------|----------------|-----------|--------------|---------|---------|
| 337922   | 43045-0212     | 2         | ..... \$ .63 | \$ .539 | \$ .404 |
| 338001   | 43045-0412     | 4         | ..... .40    | .34     | .315    |
| 338079   | 43045-0612     | 6         | ..... .48    | .408    | (.306)  |
| 338132   | 43045-0812     | 8         | ..... .70    | .60     | (.446)  |
| 338175   | 43045-1012     | 10        | ..... .65    | .55     | (.415)  |
| 338239   | 43045-1212     | 12        | ..... .82    | .70     | (.52)   |

### Vertical Thru Hole – Gold (Fig. 5)

| Part No. | Cross Ref. No. | Positions | 1            | 10      | 100       |
|----------|----------------|-----------|--------------|---------|-----------|
| 337931   | 43045-0214     | 2         | ..... \$ .49 | \$ .417 | (\$ .313) |
| 338010   | 43045-0414     | 4         | ..... .60    | .51     | (.383)    |
| 338087   | 43045-0614     | 6         | ..... .81    | .69     | (.51)     |
| 338141   | 43045-0814     | 8         | ..... .99    | .84     | (.63)     |
| 338183   | 43045-1014     | 10        | ..... 2.25   | 1.91    | (1.43)    |
| 338247   | 43045-1214     | 12        | ..... 1.39   | 1.18    | (.88)     |

### Extraction Tool

- Length: 3.0"



| Part No. | Cross Ref. No. | 1       | 5       |
|----------|----------------|---------|---------|
| 338669   | 11-03-0043     | \$14.99 | \$11.49 |

### Crimp Tool

- Length: 8.25"

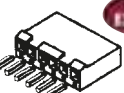


| Part No. | Cross Ref. No. | 1       | 5       | 10      |
|----------|----------------|---------|---------|---------|
| 338678   | HT-225D        | \$24.99 | \$22.99 | \$19.99 |

## .156" (3.96mm) Center Housing Connectors

- Common to many power supplies carried by Jameco. Some power supplies (pgs 214-218) may require multiple connectors
- Housing material: nylon 66, UL94V-2
- Use w/ crimp pins, 78319, below

**Quantity SAVE**



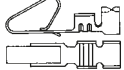
104731

Blue Part No. = Limited Quantity Available

| Part No. | Cross Ref. No. | Positions | 1            | 10     | 100    | 1000   |
|----------|----------------|-----------|--------------|--------|--------|--------|
| 104432   | LCH3           | 3         | ..... \$ .22 | \$ .19 | \$ .12 | \$ .11 |
| 104716   | LCH4           | 4         | ..... .25    | .22    | .15    | .12    |
| 104723   | LCH5           | 5         | ..... .22    | .198   | .141   | (.106) |
| 104731   | LCH6           | 6         | ..... .33    | .30    | .24    | .15    |
| 104766   | LCH10          | 10        | ..... .58    | .51    | .274   | (.206) |

## .156" (3.96mm) Center Crimp Pins

- Pin wire gauge: 18-24 AWG
- Material: brass/tin plated
- Use with .156 housings (above)



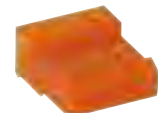
Prepackaged: please order in increments of 10

| Part No. | Mfr. Cross Ref. No. | 10     | 100    | 1000   |
|----------|---------------------|--------|--------|--------|
| 78319    | JS-5001-T           | \$ .11 | \$ .08 | \$ .07 |

## AMP MTA-156 (.156") Housings & Accessories

### Housings

- Housing material: UL 94V-2 rated nylon
- Contacts: copper alloy with 2.03μ" tin plating
- Accepts 1.14mm (0.045") posts



524613

\* Prepackaged: please order in increments of 10

### 18AWG w/o tabs

| Part No. | Product No. | Positions | 1         | 10      | 100     |
|----------|-------------|-----------|-----------|---------|---------|
| 524592   | 640426-2    | 2         | ..... *   | \$ .152 | \$ .137 |
| 524605   | 640426-3    | 3         | ..... *   | .155    | .104    |
| 524613   | 640426-4    | 4         | ..... .26 | .234    | .185    |
| 524621   | 640426-5    | 5         | ..... .85 | .74     | .67     |
| 524630   | 640426-6    | 6         | ..... .24 | .22     | .202    |

### 22AWG w/o tabs

| Part No. | Product No. | Positions | 1         | 10      | 100     |
|----------|-------------|-----------|-----------|---------|---------|
| 524648   | 640428-2    | 2         | ..... *   | \$ .132 | \$ .119 |
| 524656   | 640428-4    | 4         | ..... .20 | .164    | .152    |
| 524664   | 640428-6    | 6         | ..... .24 | .22     | .202    |

### Closed End Strain Relief Covers

| Part No. | Product No. | Positions | 1            | 10      | 100     |
|----------|-------------|-----------|--------------|---------|---------|
| 525106   | 640428-2    | 2         | ..... \$ .23 | \$ .215 | \$ .201 |

▲ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

## AMP Manual Pistol Hand Grip Tool

- For use with MTA Connectors



| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 526635   | 58074-1     | \$57.09 | \$53.45 |

More AMP MTA-156 products at  
[www.Jameco.com/Prod/AMPMTA](http://www.Jameco.com/Prod/AMPMTA)

## .156" (3.96mm) IDC Connectors

### AMP MTA-156 Series Value Equivalents

Quantity SAVE

Lower \$\$\$

### Closed-End Style

With Locking Ramp and w/o Polarizing Tabs (Fig. 1)

• Orange • AWG: 18

| Part No. | Cross Ref. No. | Positions | 1     | 10    | 100                    |
|----------|----------------|-----------|-------|-------|------------------------|
| 397431   | 640426-2       | 2         | ..... | \$.21 | \$.103 <b>(\$0.07)</b> |
| 397440   | 640426-3       | 3         | ..... | .22   | .149 <b>(.112)</b>     |
| 397458   | 640426-4       | 4         | ..... | .23   | .158 <b>(.119)</b>     |
| 397466   | 640426-5       | 5         | ..... | .24   | .185 <b>(.139)</b>     |
| 397474   | 640426-6       | 6         | ..... | .24   | .204 <b>(.153)</b>     |

• Yellow • AWG: 20

| Part No. | Cross Ref. No. | Positions | 1     | 10    | 100                     |
|----------|----------------|-----------|-------|-------|-------------------------|
| 397520   | 640427-2       | 2         | ..... | \$.21 | \$.113 <b>(\$0.085)</b> |
| 397538   | 640427-3       | 3         | ..... | .22   | .139 <b>(.104)</b>      |
| 397546   | 640427-4       | 4         | ..... | .23   | .127 <b>(.118)</b>      |
| 397554   | 640427-5       | 5         | ..... | .24   | .185 <b>(.139)</b>      |
| 397562   | 640427-6       | 6         | ..... | .25   | .198 <b>(.145)</b>      |

### With Locking Ramp and Polarizing Tabs (Fig. 2)

• Orange • AWG: 18

| Part No. | Cross Ref. No. | Positions | 1     | 10    | 100                    |
|----------|----------------|-----------|-------|-------|------------------------|
| 397618   | 643817-2       | 2         | ..... | \$.20 | \$.17 <b>(\$0.128)</b> |
| 397626   | 643817-3       | 3         | ..... | .22   | .138 <b>(.104)</b>     |
| 397634   | 643817-4       | 4         | ..... | .23   | .14 <b>(.105)</b>      |
| 397642   | 643817-5       | 5         | ..... | .24   | .149 <b>(.138)</b>     |
| 397651   | 643817-6       | 6         | ..... | .24   | .159 <b>(.145)</b>     |

• Yellow • AWG: 20

| Part No. | Cross Ref. No. | Positions | 1     | 10    | 100                     |
|----------|----------------|-----------|-------|-------|-------------------------|
| 397706   | 643818-2       | 2         | ..... | \$.20 | \$.119 <b>(\$0.089)</b> |
| 397714   | 643818-3       | 3         | ..... | .22   | .179 <b>(.134)</b>      |
| 397722   | 643818-4       | 4         | ..... | .23   | .17 <b>(.128)</b>       |
| 397731   | 643818-5       | 5         | ..... | .24   | .199 <b>(.149)</b>      |
| 397749   | 643818-6       | 6         | ..... | .24   | .179 <b>(.134)</b>      |

### Strain Relief Covers for Closed-End Style

| Part No. | Cross Ref. No. | Positions | 1     | 10    | 100                   |
|----------|----------------|-----------|-------|-------|-----------------------|
| 398696   | 643067-2       | 2         | ..... | \$.20 | \$.16 <b>(\$0.12)</b> |
| 398709   | 643067-3       | 3         | ..... | .24   | .22 <b>(.165)</b>     |
| 398717   | 643067-4       | 4         | ..... | .33   | .256 <b>(.17)</b>     |
| 398725   | 643067-5       | 5         | ..... | .67   | .57 <b>(.428)</b>     |
| 398733   | 643067-6       | 6         | ..... | .29   | .247 <b>(.185)</b>    |

## .156" Center Housing Connectors & Crimp Contact

• Mating connectors for Mean Well LPS and LPP series power supplies (pgs 217-218)

• Current rating: 10A AC/DC

• Voltage rating: 250V AC/DC

**227416:**

- Material: brass
- Finish: tin-plated
- 18-22 AWG

Quantity SAVE

| Part No. | Description    | 1     | 10    | 100   | 1000                   |
|----------|----------------|-------|-------|-------|------------------------|
| 215950   | 5 pos. housing | ..... | \$.35 | \$.31 | \$.25 <b>(\$0.187)</b> |
| 227416   | Crimp contact  | ..... | .32   | .288  | .23 <b>(.173)</b>      |

### Feed-Thru Style

With Locking Ramp and w/o Polarizing Tabs (Fig. 3)

• Orange • AWG: 18

| Part No. | Cross Ref. No. | Positions | 1     | 10    | 100                     |
|----------|----------------|-----------|-------|-------|-------------------------|
| 397790   | 640599-2       | 2         | ..... | \$.20 | \$.117 <b>(\$0.088)</b> |
| 397802   | 640599-3       | 3         | ..... | .22   | .129 <b>(.097)</b>      |
| 397811   | 640599-4       | 4         | ..... | .23   | .158 <b>(.119)</b>      |
| 397829   | 640599-5       | 5         | ..... | .24   | .172 <b>(.129)</b>      |
| 397837   | 640599-6       | 6         | ..... | .24   | .199 <b>(.149)</b>      |

• Yellow • AWG: 20

| Part No. | Cross Ref. No. | Positions | 1     | 10    | 100                     |
|----------|----------------|-----------|-------|-------|-------------------------|
| 397888   | 640600-2       | 2         | ..... | \$.21 | \$.129 <b>(\$0.097)</b> |
| 397896   | 640600-3       | 3         | ..... | .22   | .149 <b>(.112)</b>      |
| 397917   | 640600-5       | 5         | ..... | .24   | .179 <b>(.134)</b>      |
| 397925   | 640600-6       | 6         | ..... | .24   | .199 <b>(.153)</b>      |

### With Locking Ramp and Polarizing Tabs (Fig. 4)

• Orange • AWG: 18

| Part No. | Cross Ref. No. | Positions | 1     | 10    | 100                     |
|----------|----------------|-----------|-------|-------|-------------------------|
| 397976   | 644465-2       | 2         | ..... | \$.21 | \$.099 <b>(\$0.074)</b> |
| 397984   | 644465-3       | 3         | ..... | .22   | .119 <b>(.089)</b>      |
| 398004   | 644465-5       | 5         | ..... | .24   | .175 <b>(.131)</b>      |

• Yellow • AWG: 20

| Part No. | Cross Ref. No. | Positions | 1     | 10    | 100                     |
|----------|----------------|-----------|-------|-------|-------------------------|
| 398063   | 644466-2       | 2         | ..... | \$.21 | \$.099 <b>(\$0.074)</b> |
| 398071   | 644466-3       | 3         | ..... | .22   | .109 <b>(.10)</b>       |
| 398080   | 644466-4       | 4         | ..... | .23   | .119 <b>(.099)</b>      |
| 398098   | 644466-5       | 5         | ..... | .24   | .189 <b>(.142)</b>      |
| 398101   | 644466-6       | 6         | ..... | .24   | .199 <b>(.149)</b>      |

### Strain Relief Covers for Feed-Thru Style

| Part No. | Cross Ref. No. | Positions | 1     | 10    | 100                     |
|----------|----------------|-----------|-------|-------|-------------------------|
| 398602   | 643071-2       | 2         | ..... | \$.20 | \$.189 <b>(\$0.141)</b> |
| 398611   | 643071-3       | 3         | ..... | .27   | .245 <b>(.183)</b>      |
| 398629   | 643071-4       | 4         | ..... | .37   | .327 <b>(.245)</b>      |
| 398637   | 643071-5       | 5         | ..... | .34   | .316 <b>(.237)</b>      |
| 398645   | 643071-6       | 6         | ..... | .20   | .166 <b>(.124)</b>      |

## AMP T-Handle Tool

• For .156" IDC connectors

| Part No. | Product No. | Description      | Price   |
|----------|-------------|------------------|---------|
| 404540   | 59804-1     | 0.156" hand tool | \$20.89 |

## .156" (3.96mm) Center Straight-Friction Lock Headers

• Voltage rating: 250VAC/VDC max.

• Current rating: 7 amps AC/DC

• Contact resistance: 20mΩ

• Temperature range: -25°C to +85°C

• Header material: pin-tin-plated brass

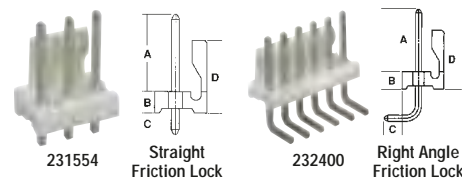
• Base: nylon 66, UL94V-2

\* Prepackaged: please order in increments of 10

| Part No. | Cross Ref. No. | Pins | 1     | 10    | 100   | 1000                 |
|----------|----------------|------|-------|-------|-------|----------------------|
| 104791   | LMH4           | 4    | ..... | \$.23 | \$.13 | \$.109 <b>\$.093</b> |
| 104803   | LMH5           | 5    | ..... | *     | .13   | .11 <b>.09</b>       |
| 104811   | LMH6           | 6    | ..... | *     | .128  | .102 <b>(.077)</b>   |
| 104846   | LMH10          | 10   | ..... | .27   | .198  | .184 <b>(.138)</b>   |

## AMP .156" (3.96mm) Male Headers

- .045" square posts
- Voltage and current rating: 600VAC @ 7.0A
- Contact material/plating: copper alloy/tin
- Insulator material: polyester
- UL94V-0 flammability rating
- Solder tail material/plating: copper alloy/tin



### Straight Friction Lock Headers

• Dimensions: (A) .450"; (B) .125"; (C) .125"; (D) .425"

• Blue Part No. = Limited Quantity Available

| Part No. | Product No. | Positions | 1     | 10    | 100                |
|----------|-------------|-----------|-------|-------|--------------------|
| 231546   | 640445-2    | 2         | ..... | \$.20 | \$.07 <b>\$.06</b> |
| 231554   | 640445-3    | 3         | ..... | .21   | .075 <b>.065</b>   |
| 231562   | 640445-4    | 4         | ..... | .22   | .129 <b>.115</b>   |
| 231626   | 1-640445-0  | 10        | ..... | .26   | .24 <b>(.18)</b>   |

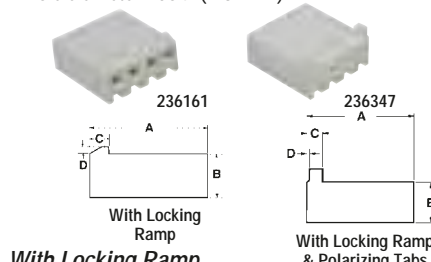
### Right Angle Friction Lock Headers

• Dimensions: (A) .450"; (B) .125"; (C) .125"; (D) .425"

| Part No. | Product No. | Positions | 1     | 10    | 100                |
|----------|-------------|-----------|-------|-------|--------------------|
| 232362   | 640389-2    | 2         | ..... | \$.29 | \$.26 <b>\$.23</b> |
| 232400   | 640389-6    | 6         | ..... | .80   | .71 <b>.62</b>     |

## AMP .156" (3.96mm) Female Housing

- Voltage and current rating: 250VAC @ 6.5A maximum
- Material: nylon, unreinforced 94V-0
- Dielectric withstanding voltage: 2kVAC
- Insulation resistance: 1,000MΩ minimum
- Hole diameter: .054" (1.37mm)



### With Locking Ramp

• Dimensions: (A) .660"; (B) .250"; (C) .100"; (D) .0365"

| Part No. | Product No. | Positions | 1     | 10    | 100                  |
|----------|-------------|-----------|-------|-------|----------------------|
| 236144   | 640250-2    | 2         | ..... | \$.20 | \$.099 <b>\$.075</b> |
| 236152   | 640250-3    | 3         | ..... | .21   | .095 <b>.07</b>      |
| 236161   | 640250-4    | 4         | ..... | .22   | .15 <b>(.112)</b>    |
| 236187   | 640250-6    | 6         | ..... | .20   | .141 <b>(.105)</b>   |
| 236224   | 1-640250-0  | 10        | ..... | .51   | .466 <b>.349</b>     |

### With Locking Ramp and Polarizing Tabs

• Dimensions: (A) .660"; (B) .250"; (C) .100"; (D) .019" ±.003"

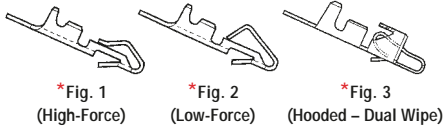
| Part No. | Product No. | Positions | 1     | 10    | 100                  |
|----------|-------------|-----------|-------|-------|----------------------|
| 236321   | 770849-2    | 2         | ..... | \$.22 | \$.106 <b>\$.075</b> |
| 236347   | 770849-4    | 4         | ..... | .29   | .213 <b>(.152)</b>   |
| 236398   | 770849-9    | 9         | ..... | .46   | .39 <b>.19</b>       |

More AMP .156" (3.96mm) Series at  
[www.jameco.com/Prod/AMPMTA](http://www.jameco.com/Prod/AMPMTA)



## AMP .156" Crimp Contacts

- Voltage rating: 250VAC • Current rating: 10A max.
- Low level resistance: 30mΩ max.
- Dielectric withstanding voltage: 2000VAC/1 min.
- Insulation resistance: 1000MΩ minimum
- Compatible with .045" square or round posts
- Material and finish:
  - \*A: brass, 0.012" bright tin plated
  - \*B: brass, 0.012" pre-tin plated
  - \*C: brass, 0.000030" gold over nickel plated
  - \*D: phosphor bronze, 0.012" bright tin plated
  - \*E: phosphor bronze, 0.00003" gold over nickel plated
- For use with .156" AMP housings (left)
- Prepackaged: please order in increments of 10



| Part No. | Product No. | Desc.* | AWG   | 10     | 100    | 500    |
|----------|-------------|--------|-------|--------|--------|--------|
| 248866   | 640706-1    | 1A     | 18-24 | \$.171 | \$.155 | \$.145 |
| 248874   | 640706-2    | 1B     | 18-24 | \$.152 | \$.14  | \$.13  |
| 248882   | 640707-1    | 2A     | 18-24 | \$.186 | \$.167 | \$.137 |
| 248891   | 770258-1    | 2C     | 18-24 | \$.39  | \$.35  | \$.32  |
| 248903   | 770522-1    | 3D     | 18-24 | \$.19  | \$.138 | \$.123 |
| 248911   | 770258-2    | 3E     | 18-24 | \$.30  | \$.27  | \$.23  |

## MoLEX KK® Series .156" (3.96mm) Pitch PCB Connectors

- Current: 5A
- Voltage: 250VAC
- Contact resistance: 6mΩ max.
- Insulation resistance: 50k MΩ min.
- Housing: nylon, UL94V-2
- Dielectric w/standing voltage: 1500VAC



### Bottom Entry

- Contact: brass with .38μm select gold

| Part No. | Product No. | Positions | 1     | 10     | 100    |
|----------|-------------|-----------|-------|--------|--------|
| 523223   | 09-62-3032  | 3         | \$.75 | \$.461 | \$.439 |
| 523240   | 09-62-3042  | 4         | \$.95 | \$.84  | \$.59  |
| 523274   | 09-62-3062  | 6         | \$.98 | \$.93  | \$.88  |
| 523320   | 09-62-3082  | 8         | 2.29  | 1.88   | 1.18   |
| 523418   | 09-62-3122  | 12        | 1.95  | 1.85   | 1.76   |

- Contacts: brass or phosphor bronze w/ tin-lead plating

| Part No. | Product No. | Positions | 1     | 10     | 100    |
|----------|-------------|-----------|-------|--------|--------|
| 481588   | 09-52-3042  | 4         | \$.41 | \$.386 | \$.367 |
| 481596   | 09-52-3052  | 5         | \$.50 | \$.47  | \$.447 |
| 481609   | 09-52-3062  | 6         | \$.91 | \$.86  | \$.65  |
| 481617   | 09-52-3072  | 7         | 1.03  | \$.98  | \$.70  |
| 481633   | 09-52-3082  | 8         | \$.99 | \$.94  | \$.72  |

### Right Angle

- Contact: brass with .38μm select gold

| Part No. | Product No. | Positions | 1      | 10     | 100    |
|----------|-------------|-----------|--------|--------|--------|
| 523371   | 09-62-3101  | 10        | \$2.69 | \$2.37 | \$1.40 |

## MoLEX KK® Series .156" (3.96mm) Crimp Terminal

### Trifurcon Terminal

- Brass with tin plating (cat ear)
- Prepackaged: please order in increments of 10



| Part No. | Product No. | Description     | 10     | 100    |
|----------|-------------|-----------------|--------|--------|
| 462774   | 08-50-0165  | 18-20 AWG (bag) | \$.105 | \$.095 |

## MoLEX KK® Series .156" (3.96mm) Pitch Crimp Terminal Housings

- Voltage: 250VAC • Housing: nylon, UL94V-2
- Dielectric withstanding voltage: 1500VAC
- With Locking Ramp (KK Series 2139)

- Current:
  - brass – 5A max.;
  - phosphor bronze – 7A max.;
- Contact resistance: 6mΩ max.
- Insulation resistance: 50k MΩ min.

**Lower \$\$\$**



| Part No. | Product No. | Positions | 1     | 10     | 100    |
|----------|-------------|-----------|-------|--------|--------|
| 463427   | 09-50-3021  | 2         | \$.20 | \$.096 | \$.088 |
| 463435   | 09-50-3031  | 3         | \$.20 | \$.13  | \$.124 |
| 463443   | 09-50-3041  | 4         | \$.25 | \$.173 | \$.165 |
| 463460   | 09-50-3061  | 6         | \$.31 | \$.295 | \$.257 |
| 463486   | 09-50-3081  | 8         | \$.40 | \$.275 | \$.248 |
| 463507   | 09-50-3101  | 10        | \$.40 | \$.26  | \$.243 |
| 463523   | 09-50-3121  | 12        | \$.61 | \$.58  | \$.495 |

### With Locking Ramp (KK Series 41695)

- Current:
  - brass – 5A max.;
  - phosphor bronze – 7A max.;
- Contact resistance: 6mΩ max.
- Insulation resistance: 500k MΩ min.



| Part No. | Product No. | Positions | 1     | 10     | 100    |
|----------|-------------|-----------|-------|--------|--------|
| 481393   | 09-50-8021  | 2         | \$.20 | \$.104 | \$.095 |
| 481406   | 09-50-8031  | 3         | \$.20 | \$.122 | \$.121 |
| 481422   | 09-50-8041  | 4         | \$.35 | \$.301 | \$.229 |
| 481449   | 09-50-8051  | 5         | \$.27 | \$.209 | \$.198 |
| 481465   | 09-50-8061  | 6         | \$.28 | \$.252 | \$.244 |
| 481502   | 09-50-8081  | 8         | \$.35 | \$.334 | \$.315 |
| 481334   | 09-50-8101  | 10        | \$.72 | \$.62  | \$.409 |
| 481060   | 09-50-8121  | 12        | \$.84 | \$.66  | \$.485 |

### With Locking Ramp (KK Series 3069)

- Current: 7A
- Wire-to-Board
- Contact resistance: 20mΩ max.
- Insulation resistance: 500k MΩ min.



| Part No. | Product No. | Positions | 1     | 10     | 100    |
|----------|-------------|-----------|-------|--------|--------|
| 520031   | 09-91-0200  | 2         | \$.31 | \$.289 | \$.275 |
| 520049   | 09-91-0300  | 3         | \$.57 | \$.542 | \$.409 |
| 520057   | 09-91-0400  | 4         | \$.51 | \$.488 | \$.464 |
| 520065   | 09-91-0500  | 5         | \$.42 | \$.395 | \$.377 |
| 520073   | 09-91-0600  | 6         | \$.44 | \$.42  | \$.40  |
| 520209   | 09-91-2000  | 20        | \$.94 | \$.89  | \$.85  |

## MoLEX SPOX™ .156" (3.96mm) Pitch Headers

### Right Angle, Friction Lock

- Current: 7A
- Voltage: 250V
- Housing:
  - 6/6 nylon, UL94V-2
- Contact resistance: 10mΩ max.
- Insulation resistance: 1000MΩ min.
- Dielectric withstanding voltage: 1500VAC/1 min.
- Contacts: brass w/ tin plating, 0.045" square posts

**Lower \$\$\$**

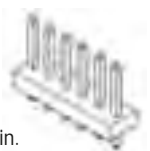


| Part No. | Product No. | Positions | 1     | 10     | 100    |
|----------|-------------|-----------|-------|--------|--------|
| 519881   | 09-75-2024  | 2         | \$.26 | \$.253 | \$.245 |
| 519890   | 09-75-2034  | 3         | \$.48 | \$.456 | \$.342 |
| 519902   | 09-75-2044  | 4         | \$.44 | \$.42  | \$.392 |
| 519929   | 09-75-2064  | 6         | \$.89 | \$.82  | \$.80  |

## MoLEX .156" (3.96mm) Pitch Headers

### Vertical

- Current: 7A • Voltage: 250V
- Contact resistance: 10mΩ max.
- Dielectric withstanding voltage: 1500VAC/1 min.
- Insulation resistance: 1000MΩ min.
- Housing: 6/6 nylon, UL94V-2
- Contacts: brass w/ tin plating, 0.045" square posts



| Part No. | Product No. | Positions | 1     | 10    | 100    |
|----------|-------------|-----------|-------|-------|--------|
| 519751   | 09-67-4061  | 6         | \$.55 | \$.52 | \$.495 |

## MoLEX .165" (4.2mm) Mini-Fit Jr. Connectors

- Fully isolated terminals to protect contacts from damage
- UL/CSA/TUV approved
- Use with strain relief or overmold applications
- Positive housing lock for secure mating retention
- Uses standard Mini-Fit series terminals
- Housing: 6/6 nylon natural, UL 94V-2 rated



### Double Row Receptacles

**Quantity SAVE**

| Part No. | Product No. | Fig. | Pos. | 1     | 10     | 100    |
|----------|-------------|------|------|-------|--------|--------|
| 303562   | 39-01-2020  | 1    | 2    | \$.33 | \$.294 | \$.225 |
| 303571   | 39-01-2040  | 1    | 4    | \$.41 | \$.341 | \$.232 |
| 303589   | 39-01-2060  | 1    | 6    | \$.42 | \$.357 | \$.268 |
| 303597   | 39-01-2080  | 1    | 8    | \$.45 | \$.406 | \$.274 |
| 303600   | 39-01-2100  | 1    | 10   | \$.50 | \$.445 | \$.299 |
| 303618   | 39-01-2120  | 1    | 12   | \$.62 | \$.527 | \$.395 |
| 303642   | 39-01-2180  | 1    | 18   | \$.81 | \$.72  | \$.485 |
| 303651   | 39-01-2200  | 1    | 20   | \$.89 | \$.79  | \$.532 |
| 303677   | 39-01-2240  | 1    | 24   | 1.12  | \$.95  | \$.71  |

### Double Row Plugs

#### Panel Mount Plugs w/ Mounting Ears

| Part No. | Product No. | Fig. | Pos. | 1     | 10     | 100    |
|----------|-------------|------|------|-------|--------|--------|
| 303685   | 39-01-2021  | 2    | 2    | \$.32 | \$.264 | \$.193 |
| 303693   | 39-01-2041  | 2    | 4    | \$.47 | \$.392 | \$.267 |
| 303706   | 39-01-2061  | 2    | 6    | \$.48 | \$.41  | \$.304 |
| 303731   | 39-01-2121  | 2    | 12   | \$.56 | \$.48  | \$.36  |

### Double Row Headers

- Voltage: 600V • Contact resistance: 10mΩ max.
- Dielectric withstanding voltage: 1500VAC
- Insulation resistance: 1000MΩ min.
- Contact: brass or phosphor bronze

#### Right Angle Headers w/ Flange – Gold Plated, 30μ"

|        |            |   |    |      |      |      |
|--------|------------|---|----|------|------|------|
| 304442 | 39-29-5023 | 3 | 2  | 1.79 | 1.52 | 1.14 |
| 304451 | 39-29-5043 | 3 | 4  | 1.85 | 1.64 | 1.10 |
| 304493 | 39-29-5123 | 3 | 12 | 4.15 | 3.66 | 2.44 |
| 304549 | 39-29-5223 | 3 | 22 | 9.49 | 8.07 | 6.05 |

## MoLEX Hand Tools for Mini-Fit Jr.



304928: Crimp tool wire range from 14-24 AWG

304936: Extraction tool

| Part No. | Product No. | 1       | 5       |
|----------|-------------|---------|---------|
| 304928   | 63811-1000  | \$42.99 | \$41.33 |
| 304936   | 11-03-0044  | 19.99   | 18.99   |

More MoLEX KK® Series .156" products  
 at [www.Jameco.com/Prod/MoLEXKK](http://www.Jameco.com/Prod/MoLEXKK)

⚡ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)



## .165" (4.2mm) Mini-Fit Jr. Contacts

- Voltage: 600V
- Current: 9A (†12A current rating)
- Dielectric withstanding voltage: 1500V
- Contact resistance: 10mΩ max.
- Insulation resistance: 1000MΩ min.
- Material:

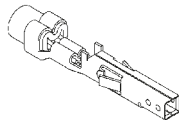
- \*A: Brass (pre-plated tin over copper)
- \*B: Brass or copper (post-plated tin over nickel)
- \*C: Brass (post-plated tin over nickel)
- \*D: Phosphor bronze (pre-plated gold over nickel)

\*Prepackaged: please order in increments of 10

⊕ Blue Part No. = Limited Quantity Available



\*Fig. 1 (Male)



\*Fig. 2 (Female)

### Male Contacts

| Part No. | Product No. | Desc.* | AWG   | 1   | 10     | 100                 |
|----------|-------------|--------|-------|-----|--------|---------------------|
| 304725   | 39-00-0041  | ⊕ 1A   | 18-24 | ... | * .056 | \$.047              |
| 304792   | 30490-2012  | ⊕ 1D   | 18-24 | ... | .28    | .238 <b>(\$179)</b> |
| 304768   | 44478-1112  | ⊕ 1B   | 22-28 | ... | .28    | .261 .171           |

• Sold in 4000 piece reel

| Part No. | Product No. | Desc.* | AWG   | Price          |
|----------|-------------|--------|-------|----------------|
| 307985   | 39-00-0040  | ⊕ 1A   | 18-24 | ..... \$108.00 |

### Female Contacts

| Part No. | Product No. | Desc.* | AWG   | 1   | 10    | 100                                 |
|----------|-------------|--------|-------|-----|-------|-------------------------------------|
| 304670   | 44476-3112  | ⊕ 2C   | 16    | ... | \$.32 | \$.20 <b>(\$165)</b> <b>(\$124)</b> |
| 304733   | 39-00-0039  | ⊕ 2A   | 18-24 | ... | ...   | * .064 .059                         |
| 304750   | 39-00-0182  | ⊕ 2D   | 18-24 | ... | .46   | .44 .40                             |
| 304776   | 44476-1112  | ⊕ 2B   | 18-24 | ... | ...   | * .136 <b>(\$102)</b>               |
| 304784   | 44485-1212  | ⊕ 2D   | 18-24 | ... | .88   | .74 .523                            |
| 304813   | 39-00-0164  | ⊕ 2C   | 18-24 | ... | .43   | .39 .345                            |
| 304872   | 39-00-0047  | ⊕ 2A   | 22-28 | ... | .20   | .14 .096                            |

• Sold in 4000 piece reel

| Part No. | Product No. | Desc.* | AWG   | Price          |
|----------|-------------|--------|-------|----------------|
| 307993   | 39-00-0038  | ⊕ 2A   | 18-24 | ..... \$140.00 |



More Molex On-Line

Find more Molex

Mini-Fit™ Jr. products at

[www.Jameco.com/Prod/MiniFit](http://www.Jameco.com/Prod/MiniFit)

## Making Great Connectors Even Better!

Do you know how to make these premium-quality connectors even better? Too often, prototypers use pliers or an incorrect crimper to fasten wire to pin. When the plier tips are too wide, pin shapes become distorted. Even a slight distortion can prevent the pin from seating in the connector properly, which leads to poor connections. An improper crimper can either under-crimp, leading to future wire separation; or over-crimp, leading to fatigued pins that eventually break apart.

Be sure you use the right crimper for the job. For instance, be sure to use P/N 99443 on page 292 for the crimp pins on this page. Then you can be assured the quality of your work will be as great as the quality of the connectors.



**Practical Practices**  
Money Saving Tips for the Engineer

## .165" (4.2mm) Mini-Fit™ Jr. Equivalent Contacts



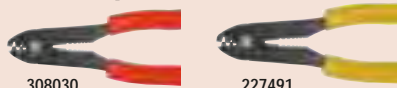
\*Type:

- A: Tin over nickel over brass
- B: 15μ gold over nickel over brass
- C: 30μ gold over nickel over brass
- D: Tin over nickel over phosphor bronze
- E: 15μ gold over nickel over phosphor bronze
- F: 30μ gold over nickel over phosphor bronze

\*Prepackaged: please order in increments of 10

| Part No. | Cross Ref. No. | AWG     | Type* | 1   | 10    | 100                   |
|----------|----------------|---------|-------|-----|-------|-----------------------|
| 365747   | 39-00-0054     | ⊕ 18-24 | 1C    | ... | \$.48 | \$.356 <b>(\$258)</b> |
| 401859   | 39-00-0076     | ⊕ 18-24 | 1B    | ... | .29   | .23 <b>(\$173)</b>    |
| 365798   | 39-00-0088     | ⊕ 22-28 | 1C    | ... | .30   | .255 <b>(\$191)</b>   |
| 365704   | 39-00-0096     | ⊕ 16    | 1C    | ... | .30   | .255 <b>(\$191)</b>   |
| 401841   | 39-00-0098     | ⊕ 22-28 | 1B    | ... | .31   | .264 <b>(\$198)</b>   |
| 401867   | 39-00-0099     | ⊕ 16    | 1B    | ... | .20   | .15 <b>(\$113)</b>    |
| 401824   | 39-00-0121     | ⊕ 18-24 | 1A    | ... | *     | .062 .044             |
| 401816   | 39-00-0123     | ⊕ 22-28 | 1A    | ... | .20   | .075 <b>(\$056)</b>   |
| 401832   | 39-00-0125     | ⊕ 16    | 1A    | ... | .20   | .076 <b>(\$057)</b>   |
| 401752   | 39-00-0126     | ⊕ 22-28 | 2D    | ... | *     | .056 .041             |
| 365886   | 39-00-0164     | ⊕ 18-24 | 2C    | ... | \$.31 | .247 <b>(\$185)</b>   |
| 365915   | 39-00-0166     | ⊕ 22-28 | 2C    | ... | \$.31 | .25 <b>(\$188)</b>    |
| 365835   | 39-00-0168     | ⊕ 16    | 2C    | ... | .36   | .306 <b>(\$23)</b>    |
| 401736   | 39-00-0170     | ⊕ 18-24 | 2B    | ... | \$.32 | .247 <b>(\$185)</b>   |
| 401728   | 39-00-0172     | ⊕ 22-28 | 2B    | ... | \$.31 | .247 <b>(\$185)</b>   |
| 401744   | 39-00-0174     | ⊕ 16    | 2B    | ... | .35   | .298 <b>(\$224)</b>   |
| 365851   | 39-00-0182     | ⊕ 18-24 | 2F    | ... | .38   | .323 <b>(\$242)</b>   |
| 365907   | 39-00-0184     | ⊕ 22-28 | 2F    | ... | .38   | .323 <b>(\$242)</b>   |
| 365827   | 39-00-0186     | ⊕ 16    | 2F    | ... | .38   | .298 <b>(\$224)</b>   |
| 401795   | 39-00-0195     | ⊕ 18-24 | 2E    | ... | \$.32 | .247 <b>(\$185)</b>   |
| 401787   | 39-00-0197     | ⊕ 22-28 | 2E    | ... | .38   | .323 <b>(\$242)</b>   |
| 401808   | 39-00-0199     | ⊕ 16    | 2E    | ... | .35   | .298 <b>(\$224)</b>   |
| 401701   | 39-00-0208     | ⊕ 18-24 | 2A    | ... | *     | .063 <b>(\$047)</b>   |
| 401699   | 39-00-0210     | ⊕ 22-28 | 2A    | ... | *     | .056 <b>(\$041)</b>   |
| 401710   | 39-00-0212     | ⊕ 16    | 2A    | ... | *     | .126 .118             |
| 401761   | 39-00-0214     | ⊕ 18-24 | 2A    | ... | *     | .076 <b>(\$055)</b>   |
| 401779   | 39-00-0218     | ⊕ 16    | 2D    | ... | *     | .119 <b>(\$089)</b>   |

## Hand Crimp Tools for Mini-Fit Jr.



- 308030: Cuts & strips 14-24 AWG wires
- 227491: Cuts & strips 18-30 AWG wires

| Part No. | Product No. | Length  | Color  | 1     | 5               |
|----------|-------------|---------|--------|-------|-----------------|
| 308030   | W-HT-1919   | ⊕ 8.3'L | Red    | ..... | \$14.99 \$13.99 |
| 227491   | W-HT-1921   | ⊕ 8.3'L | Yellow | ...   | 14.99 13.99     |

## .165" (4.2mm) Connectors Molex Mini-Fit Jr. Value Equivalents

- Low profile design to accommodate height constraints
- Fully isolated terminals to protect contacts from damage
- Positive locking housings
- Contact resistance: 10mΩ
- Temperature: -40°C to +150°C
- Housing: 6/6 Nylon Natural
- UL rating: 94V-2
- Pitch: 0.165" (4.2mm)
- Current: up to 9A
- Voltage: 600V



Fig. 1

Fig. 2



Fig. 3



Fig. 4

Fig. 5

### Molex 5557 Series Connector Equivalents

#### Receptacle Single Row

| Part No. | Cross Ref. No. | Fig. | Positions | 1   | 10    | 100                     |
|----------|----------------|------|-----------|-----|-------|-------------------------|
| 364584   | 39-01-4030     | ⊕ 1  | 3         | ... | \$.20 | \$.147 \$124            |
| 364592   | 39-01-4040     | ⊕ 1  | 4         | ... | \$.33 | .29 .247 <b>(\$185)</b> |
| 364605   | 39-01-4050     | ⊕ 1  | 5         | ... | .33   | .265 .223               |

#### Receptacle Dual Row

| Part No. | Cross Ref. No. | Fig. | Positions | 1   | 10    | 100                    |
|----------|----------------|------|-----------|-----|-------|------------------------|
| 364736   | 39-01-2020     | ⊕ 2  | 2         | ... | \$.27 | \$.23 <b>(\$173)</b>   |
| 364744   | 39-01-2040     | ⊕ 2  | 4         | ... | .20   | .176 .119              |
| 364752   | 39-01-2060     | ⊕ 2  | 6         | ... | .38   | .34 .23                |
| 364761   | 39-01-2080     | ⊕ 2  | 8         | ... | .43   | .371 .258              |
| 364779   | 39-01-2100     | ⊕ 2  | 10        | ... | \$.42 | .35 .29 <b>(\$218)</b> |
| 364787   | 39-01-2120     | ⊕ 2  | 12        | ... | .52   | .429 .321              |
| 364795   | 39-01-2140     | ⊕ 2  | 14        | ... | .70   | .62 <b>(\$465)</b>     |
| 364808   | 39-01-2160     | ⊕ 2  | 16        | ... | .59   | .502 <b>(\$377)</b>    |
| 364824   | 29-01-2200     | ⊕ 2  | 20        | ... | .75   | .64 <b>(\$479)</b>     |
| 364832   | 39-01-2220     | ⊕ 2  | 22        | ... | .99   | .84 <b>(\$63)</b>      |
| 364841   | 39-01-2240     | ⊕ 2  | 24        | ... | .90   | .88 <b>(\$66)</b>      |

### Molex 5559 Series Connector Equivalents

#### Plugs - Panel Mount w/ Ears, Single Row

| Part No. | Cross Ref. No. | Fig. | Positions | 1   | 10    | 100                   |
|----------|----------------|------|-----------|-----|-------|-----------------------|
| 364613   | 39-01-4032     | ⊕ 3  | 3         | ... | \$.24 | \$.195 <b>(\$146)</b> |
| 364621   | 39-01-4052     | ⊕ 3  | 5         | ... | .32   | .258 <b>(\$195)</b>   |

#### Plugs - Panel Mount w/ Ears, Dual Row

| Part No. | Cross Ref. No. | Fig. | Positions | 1   | 10    | 100                   |
|----------|----------------|------|-----------|-----|-------|-----------------------|
| 364859   | 39-01-2021     | ⊕ 4  | 2         | ... | \$.28 | \$.273 <b>(\$204)</b> |
| 364867   | 39-01-2041     | ⊕ 4  | 4         | ... | .37   | .355 <b>(\$266)</b>   |
| 364875   | 39-01-2061     | ⊕ 4  | 6         | ... | .39   | .371 <b>(\$278)</b>   |
| 364883   | 39-01-2081     | ⊕ 4  | 8         | ... | .35   | .312 <b>(\$234)</b>   |
| 364891   | 39-01-2101     | ⊕ 4  | 10        | ... | .54   | .489 <b>(\$366)</b>   |
| 364904   | 39-01-2121     | ⊕ 4  | 12        | ... | .55   | .514 <b>(\$385)</b>   |
| 364912   | 39-01-2141     | ⊕ 4  | 14        | ... | .59   | .435 <b>(\$326)</b>   |
| 364921   | 39-01-2161     | ⊕ 4  | 16        | ... | .62   | .506 <b>(\$379)</b>   |

#### Plugs - Free Hanging w/o Ears, Single Row

| Part No. | Cross Ref. No. | Fig. | Positions | 1   | 10    | 100                  |
|----------|----------------|------|-----------|-----|-------|----------------------|
| 364630   | 39-01-4036     | ⊕ 5  | 3         | ... | \$.20 | \$.18 <b>(\$135)</b> |
| 364648   | 39-01-4046     | ⊕ 5  | 4         | ... | .24   | .196 <b>(\$147)</b>  |
| 364656   | 39-01-4056     | ⊕ 5  | 5         | ... | .27   | .22 .165             |



## .165" (4.2mm) Connectors Molex Mini-Fit Jr. Value Equivalents (Continued)

- Low profile design to accommodate height constraints
- Fully isolated terminals to protect contacts from damage
- Positive locking housings
- Contact resistance: 10mΩ
- Temperature: -40°C to +150°C
- Housing: 6/6 Nylon Natural
- UL rating: 94V-2
- Pitch: 0.165" (4.2mm)
- Current: up to 9A
- Voltage: 600V

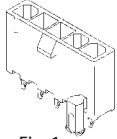


Fig. 1

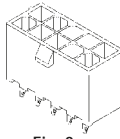


Fig. 2

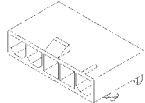


Fig. 3

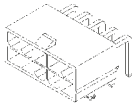


Fig. 4

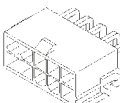

















Fig. 5

### Molex 5566 Series PCB Header Equivalents













#### Vertical Single Row w/ Pegs & Drain Holes – Tin

| Part No. | Cross Ref. No.  | Fig. | Pos. | 1            | 10            | 100                  |
|----------|---|------|------|--------------|---------------|----------------------|
| 364672   | 39-30-2035   | 1    | 3    | ..... \$ .71 | ..... \$ .466 | ..... <b>\$ .349</b> |
| 364681   | 39-30-2045   | 1    | 4    | ..... .89    | ..... .55     | ..... <b>.412</b>    |
| 364699   | 39-30-2056  | 1    | 5    | ..... 1.25   | ..... .76     | ..... <b>.57</b>     |

#### Vertical Dual Row without Pegs without Drain Holes – Tin

| Part No. | Cross Ref. No.   | Fig. | Pos. | 1            | 10            | 100                  |
|----------|--|------|------|--------------|---------------|----------------------|
| 364939   | 39-28-1023  | 2    | 2    | ..... \$ .59 | ..... \$ .516 | ..... <b>\$ .387</b> |
| 364947   | 39-28-1043  | 2    | 4    | ..... .77    | ..... .68     | ..... <b>.504</b>    |
| 364955   | 39-28-1063  | 2    | 6    | ..... 1.05   | ..... .88     | ..... <b>.66</b>     |
| 364963   | 39-28-1083  | 2    | 8    | ..... 1.19   | ..... .99     | ..... <b>.75</b>     |
| 364971   | 39-28-1103  | 2    | 10   | ..... 1.39   | ..... 1.24    | ..... <b>.93</b>     |
| 364980   | 39-28-1123  | 2    | 12   | ..... 1.49   | ..... 1.29    | ..... <b>.96</b>     |
| 364998   | 39-28-1143  | 2    | 14   | ..... 1.89   | ..... 1.71    | ..... <b>1.28</b>    |
| 365000   | 39-28-1163  | 2    | 16   | ..... 2.09   | ..... 1.77    | ..... <b>1.32</b>    |
| 365018   | 39-28-1183  | 2    | 18   | ..... 2.39   | ..... 2.03    | ..... <b>1.52</b>    |
| 365026   | 39-28-1203  | 2    | 20   | ..... 2.85   | ..... 2.42    | ..... <b>1.81</b>    |
| 365034   | 39-28-1223  | 2    | 22   | ..... 1.09   | ..... .92     | ..... <b>.69</b>     |
| 365042   | 39-28-1243  | 2    | 24   | ..... 3.19   | ..... 2.66    | ..... <b>1.99</b>    |

#### Vertical Dual Row without Pegs without Drain Holes – Gold


| Part No. | Cross Ref. No.   | Fig. | Pos. | 1            | 10           | 100                  |
|----------|--|------|------|--------------|--------------|----------------------|
| 365051   | 39-29-0023  | 2    | 2    | ..... \$ .74 | ..... \$ .58 | ..... <b>\$ .432</b> |
| 365069   | 39-29-0043  | 2    | 4    | ..... 1.19   | ..... 1.15   | ..... <b>.86</b>     |
| 365077   | 39-29-0063  | 2    | 6    | ..... 1.45   | ..... 1.20   | ..... <b>.90</b>     |
| 365085   | 39-29-0103  | 2    | 8    | ..... 2.19   | ..... 2.15   | ..... <b>1.61</b>    |
| 365093   | 39-29-0123  | 2    | 10   | ..... 2.19   | ..... 1.86   | ..... <b>1.39</b>    |
| 365106   | 39-29-0143  | 2    | 12   | ..... 3.19   | ..... 3.15   | ..... <b>2.36</b>    |
| 365114   | 39-29-0163  | 2    | 14   | ..... 3.75   | ..... 3.71   | ..... <b>2.78</b>    |
| 365122   | 39-29-0163  | 2    | 16   | ..... 3.25   | ..... 2.98   | ..... <b>2.23</b>    |
| 365131   | 39-29-0183  | 2    | 18   | ..... 4.69   | ..... 4.65   | ..... <b>3.48</b>    |
| 365149   | 39-29-0203  | 2    | 20   | ..... 5.29   | ..... 5.25   | ..... <b>3.93</b>    |
| 365157   | 39-29-0223  | 2    | 22   | ..... 5.85   | ..... 5.83   | ..... <b>4.37</b>    |
| 365165   | 39-29-0243  | 2    | 24   | ..... 6.29   | ..... 5.27   | ..... <b>3.95</b>    |

### Quantity SAVE













### Molex 5569 Series PCB Header Equivalents













#### Right Angle Single Row w/ Pegs – Tin

| Part No. | Cross Ref. No.   | Fig. | Pos. | 1            | 10           | 100                 |
|----------|--|------|------|--------------|--------------|---------------------|
| 364728   | 39-30-3055  | 3    | 5    | ..... \$ .99 | ..... \$ .62 | ..... <b>\$ .46</b> |












#### Right Angle Dual Row w/ Pegs – Tin

| Part No. | Cross Ref. No.   | Fig. | Pos. | 1            | 10            | 100                  |
|----------|--|------|------|--------------|---------------|----------------------|
| 365173   | 39-30-1020  | 4    | 2    | ..... \$ .53 | ..... \$ .514 | ..... <b>\$ .385</b> |
| 365181   | 39-30-1040  | 4    | 4    | ..... .55    | ..... .468    | ..... <b>.351</b>    |
| 365190   | 39-30-1060  | 4    | 6    | ..... .69    | ..... .521    | ..... <b>.39</b>     |
| 365202   | 39-30-1080  | 4    | 8    | ..... .72    | ..... .62     | ..... <b>.462</b>    |
| 365211   | 39-30-1100  | 4    | 10   | ..... .99    | ..... .76     | ..... <b>.57</b>     |
| 365229   | 39-30-1120  | 4    | 12   | ..... 1.19   | ..... .91     | ..... <b>.62</b>     |
| 365245   | 39-30-1160  | 4    | 16   | ..... 1.55   | ..... 1.19    | ..... <b>.90</b>     |
| 365253   | 39-30-1180  | 4    | 18   | ..... 1.39   | ..... 1.16    | ..... <b>.87</b>     |
| 365270   | 39-30-1220  | 4    | 22   | ..... 2.15   | ..... 1.94    | ..... <b>1.45</b>    |
| 365288   | 39-30-1240  | 4    | 24   | ..... 2.19   | ..... 1.86    | ..... <b>1.40</b>    |


#### Right Angle Dual Row w/ Pegs – Gold

| Part No. | Cross Ref. No.   | Fig. | Pos. | 1             | 10            | 100                 |
|----------|--|------|------|---------------|---------------|---------------------|
| 365325   | 39-30-1021    | 4    | 2    | ..... \$ 1.39 | ..... \$ 1.18 | ..... <b>\$ .88</b> |
| 365333   | 39-30-1041    | 4    | 4    | ..... .95     | ..... .94     | ..... <b>.71</b>    |
| 365341   | 39-30-1061    | 4    | 6    | ..... 1.09    | ..... .93     | ..... <b>.92</b>    |
| 365350   | 39-30-1081    | 4    | 8    | ..... 1.49    | ..... 1.45    | ..... <b>1.08</b>   |
| 365368   | 39-30-1101    | 4    | 10   | ..... 1.55    | ..... 1.32    | ..... <b>1.25</b>   |
| 365376   | 39-30-1121    | 4    | 12   | ..... 2.15    | ..... 1.82    | ..... <b>1.64</b>   |
| 365384   | 39-30-1141    | 4    | 14   | ..... 2.45    | ..... 2.41    | ..... <b>1.80</b>   |
| 365392   | 39-30-1161    | 4    | 16   | ..... 2.85    | ..... 2.42    | ..... <b>2.20</b>   |
| 365405   | 39-30-1181   | 4    | 18   | ..... 3.25    | ..... 2.76    | ..... <b>2.55</b>   |
| 365413   | 39-30-1201  | 4    | 20   | ..... 2.79    | ..... 2.54    | ..... <b>2.44</b>   |
| 365421   | 39-30-1221  | 4    | 22   | ..... 4.25    | ..... 4.22    | ..... <b>3.16</b>   |
| 365430   | 39-30-1241  | 4    | 24   | ..... 4.75    | ..... 4.73    | ..... <b>3.54</b>   |

#### Right Angle Dual Row w/ Flanges – Tin

| Part No. | Cross Ref. No.   | Fig. | Pos. | 1            | 10            | 100                  |
|----------|--|------|------|--------------|---------------|----------------------|
| 365448   | 39-29-1028  | 5    | 2    | ..... \$ .39 | ..... \$ .348 | ..... <b>\$ .261</b> |
| 365456   | 39-29-1048  | 5    | 4    | ..... .49    | ..... .435    | ..... <b>.326</b>    |
| 365464   | 39-29-1068  | 5    | 6    | ..... .62    | ..... .527    | ..... <b>.395</b>    |
| 365472   | 39-29-1088  | 5    | 8    | ..... .81    | ..... .68     | ..... <b>.51</b>     |
| 365481   | 39-29-1108  | 5    | 10   | ..... .65    | ..... .59     | ..... <b>.442</b>    |
| 365499   | 39-29-1128  | 5    | 12   | ..... 1.05   | ..... .94     | ..... <b>.70</b>     |
| 365501   | 39-29-1148  | 5    | 14   | ..... 1.15   | ..... .97     | ..... <b>.72</b>     |
| 365510   | 39-29-1168  | 5    | 16   | ..... 1.55   | ..... 1.37    | ..... <b>1.02</b>    |
| 365528   | 39-29-1188  | 5    | 18   | ..... 1.55   | ..... 1.19    | ..... <b>1.07</b>    |
| 365544   | 39-29-1228  | 5    | 22   | ..... 2.95   | ..... 2.60    | ..... <b>1.95</b>    |
| 365552   | 39-29-1248  | 5    | 24   | ..... 1.99   | ..... 1.86    | ..... <b>1.39</b>    |

#### Right Angle Dual Row w/ Flanges – Gold

| Part No. | Cross Ref. No.   | Fig. | Pos. | 1             | 10            | 100                 |
|----------|--|------|------|---------------|---------------|---------------------|
| 365561   | 39-39-5023  | 5    | 2    | ..... \$ 1.25 | ..... \$ 1.06 | ..... <b>\$ .80</b> |
| 365579   | 39-39-5043  | 5    | 4    | ..... 1.39    | ..... 1.18    | ..... <b>.89</b>    |
| 365587   | 39-39-5063  | 5    | 6    | ..... 2.25    | ..... 1.91    | ..... <b>1.36</b>   |
| 365595   | 39-39-5083  | 5    | 8    | ..... 2.29    | ..... 1.94    | ..... <b>1.45</b>   |
| 365608   | 39-39-5103  | 5    | 10   | ..... 1.79    | ..... 1.70    | ..... <b>1.27</b>   |
| 365616   | 39-39-5123  | 5    | 12   | ..... 3.05    | ..... 2.75    | ..... <b>2.06</b>   |
| 365624   | 39-39-5143  | 5    | 14   | ..... 3.89    | ..... 3.30    | ..... <b>2.47</b>   |
| 365632   | 39-39-5163  | 5    | 16   | ..... 4.69    | ..... 3.97    | ..... <b>2.97</b>   |
| 365641   | 39-39-5183  | 5    | 18   | ..... 3.45    | ..... 3.10    | ..... <b>2.32</b>   |
| 365659   | 39-39-5203  | 5    | 20   | ..... 3.95    | ..... 3.35    | ..... <b>2.51</b>   |
| 365667   | 39-39-5223  | 5    | 22   | ..... 4.45    | ..... 4.42    | ..... <b>3.31</b>   |
| 365675   | 39-39-5243  | 5    | 24   | ..... 4.75    | ..... 4.50    | ..... <b>3.37</b>   |



## .200" (5.08mm) Pitch PC Board Connectors

### Bottom Entry

- Voltage: 250V
- Current: 7.0A
- Sizes: 3 to 6 circuits
- Nylon 6/6, UL 94V-2
- Temp. range: -40° to 105°C
- Contact resistance: 8mΩ max.
- Dielectric withstand voltage: 1500VAC min.



These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

See Our Complete 0.200" Connector Offering at [www.Jameco.com/Prod/Molex200](http://www.Jameco.com/Prod/Molex200)






## HCS-125 .330" (8.38mm) Pitch Pin and Socket Receptacle/Plug Housing

- Meets the need for a connector system rated at greater than the industry standard 12A per circuit
- Enhanced version of 0.125" connectors
- Positive locks
- Fully isolated terminals
- Voltage: 600V
- Current: 20A
- Dielectric withstanding voltage: 1500VACrms
- Housing: nylon UL94V-2 rated
- Accommodates wires 18-10AWG







462504





### Receptacle Housing

| Part No. | Product No.  | Pos. | 1            | 10            | 100           |
|----------|--|------|--------------|---------------|---------------|
| 462483   | 03-12-1026   | 2    | ..... \$ .53 | ..... \$ .494 | ..... \$ .447 |
| 462491   | 03-12-1036  | 3    | ..... .75    | ..... .69     | ..... .523    |
| 462504   | 03-12-1046  | 4    | ..... .75    | ..... .71     | ..... .494    |

### Plug Housing Panel Mount

| Part No. | Product No.  | Pos. | 1             | 10            | 100          |
|----------|--|------|---------------|---------------|--------------|
| 462521   | 03-12-2015  | 1    | ..... \$ 1.21 | ..... \$ 1.15 | ..... \$ .97 |
| 462555   | 03-12-2025  | 2    | ..... .69     | ..... .63     | ..... .469   |
| 462571   | 03-12-2035  | 3    | ..... 1.14    | ..... .81     | ..... .61    |
| 462598   | 03-12-2045  | 4    | ..... .43     | ..... .411    | ..... .391   |

### Plug Housing Free Hanging

| Part No. | Product No.  | Pos. | 1            | 10            | 100           |
|----------|--|------|--------------|---------------|---------------|
| 462539   | 03-12-2016  | 1    | ..... \$ .30 | ..... \$ .282 | ..... \$ .212 |
| 462563   | 03-12-2026  | 2    | ..... .65    | ..... .57     | ..... .428    |
| 462580   | 03-12-2036  | 3    | ..... 1.47   | ..... 1.03    | ..... .78     |
| 462601   | 03-12-2046  | 4    | ..... .75    | ..... .71     | ..... .523    |

</



## Cinch

## Jones Plugs and Sockets

### Series 300 Multiple-Density Solder-Eyelet Connectors

- Insulation material: molded mono-block, black phenolic
- Contact material: plug – brass; socket – phosphor bronze
- Operating voltage: 250 VAC RMS maximum
- Hood material: UL 94V-0 rated thermoplastic

- Current rating: 10 amps
- Contact plating: cadmium
- Contact resistance: 16mΩ max.



445819



445940



248786



248823



428040



428058



428066



445798



445878



428162

### Plugs with Hood and 90° Clamp

| Part No. | Product No. | Contacts | 1      | 25     |
|----------|-------------|----------|--------|--------|
| 445819   | P-302-CCE▲  | 2        | \$2.09 | \$1.96 |
| 445991   | P-315-CCE▲  | 15       | 5.95   | 5.51   |
| 446037   | P-318-CCE▲  | 18       | 5.49   | 5.04   |

### Socket with Hood and 90° Clamp

| Part No. | Product No. | Contacts | 1      | 25     |
|----------|-------------|----------|--------|--------|
| 427987   | S-318-CCE▲  | 18       | \$6.65 | \$6.13 |

### Plugs with Locks and 180° Clamp

| Part No. | Product No.  | Contacts | 1      | 25     |
|----------|--------------|----------|--------|--------|
| 445827   | P-302-CCT-L▲ | 2        | \$4.79 | \$4.33 |
| 445940   | P-306-CCT-L▲ | 6        | 6.45   | 5.84   |
| 446002   | P-315-CCT-L▲ | 15       | 7.39   | 6.67   |

### Plugs with Hood and 180° Clamp

| Part No. | Product No. | Contacts | 1      | 25     |
|----------|-------------|----------|--------|--------|
| 248760   | P-302-CCT   | 2        | \$2.15 | \$1.96 |
| 248778   | P-303-CCT   | 3        | 2.39   | 2.15   |
| 248786   | P-304-CCT   | 4        | 3.09   | 2.49   |
| 248794   | P-306-CCT   | 6        | 2.89   | 2.62   |
| 445966   | P-312-CCT   | 12       | 4.69   | 4.20   |
| 445982   | P-315-CCT   | 15       | 6.45   | 5.84   |
| 446029   | P-318-CCT▲  | 18       | 6.05   | 5.44   |
| 446053   | P-321-CCT▲  | 21       | 9.89   | 8.93   |
| 446070   | P-324-CCT▲  | 24       | 8.95   | 8.14   |

### Sockets with Hood and 180° Clamp

| Part No. | Product No. | Contacts | 1      | 25     |
|----------|-------------|----------|--------|--------|
| 248807   | S-302-CCT   | 2        | \$2.29 | \$2.11 |
| 248823   | S-304-CCT   | 4        | 2.69   | 2.46   |
| 248831   | S-306-CCT   | 6        | 3.45   | 3.08   |
| 427952   | S-315-CCT   | 15       | 8.29   | 7.59   |
| 427995   | S-321-CCT▲  | 21       | 10.55  | 9.65   |
| 428007   | S-327-CCT▲  | 27       | 9.09   | 8.39   |
| 428242   | S-330-CCT▲  | 30       | 10.49  | 9.46   |
| 428218   | S-333-CCT▲  | 33       | 13.29  | 12.61  |

### Sockets with Keepers and 180° Clamp

| Part No. | Product No.  | Contacts | 1      | 25     |
|----------|--------------|----------|--------|--------|
| 428015   | S-302-CCT-K▲ | 2        | \$4.39 | \$3.97 |
| 428040   | S-303-CCT-K▲ | 3        | 4.95   | 4.46   |
| 428111   | S-304-CCT-K▲ | 4        | 4.59   | 4.13   |
| 428154   | S-306-CCT-K▲ | 6        | 5.05   | 4.52   |

### Plugs with Angle Bracket and 180° Clamp

| Part No. | Product No. | Contacts | 1      | 25     |
|----------|-------------|----------|--------|--------|
| 445771   | P-302-AB▲   | 2        | \$1.55 | \$1.38 |
| 445843   | P-303-AB▲   | 3        | 1.55   | 1.43   |
| 445860   | P-304-AB    | 4        | 1.79   | 1.59   |
| 445907   | P-306-AB    | 6        | 2.09   | 1.99   |
| 445974   | P-315-AB▲   | 15       | 4.45   | 4.02   |

### Sockets with Angle Bracket and 180° Clamp

| Part No. | Product No. | Contacts | 1      | 25     |
|----------|-------------|----------|--------|--------|
| 428023   | S-302-AB▲   | 2        | \$1.46 | \$1.37 |
| 428058   | S-303-AB▲   | 3        | 1.39   | 1.28   |
| 428120   | S-304-AB    | 4        | 1.89   | 1.76   |
| 428171   | S-306-AB    | 6        | 2.49   | 2.32   |

### Socket w/ Less Angle Bracket & 180° Clamp

| Part No. | Product No. | Contacts | 1      | 25     |
|----------|-------------|----------|--------|--------|
| 428066   | S-303-LAB▲  | 3        | \$0.85 | \$0.77 |

### Plug with Recessed Plate and 180° Clamp

| Part No. | Product No. | Contacts | 1      | 25     |
|----------|-------------|----------|--------|--------|
| 445798   | P-302-RP▲   | 2        | \$3.49 | \$3.29 |

### Socket with Recessed Plate and 180° Clamp

| Part No. | Product No. | Contacts | 1      | 25     |
|----------|-------------|----------|--------|--------|
| 428082   | S-304-RP▲   | 4        | \$3.25 | \$3.00 |

### Plugs with Deep Bracket and 180° Clamp

| Part No. | Product No. | Contacts | 1      | 25     |
|----------|-------------|----------|--------|--------|
| 445878   | P-304-DB▲   | 4        | \$4.75 | \$4.25 |
| 445915   | P-306-DB▲   | 6        | 4.95   | 4.47   |
| 446011   | P-318-DB▲   | 18       | 5.35   | 4.87   |

### Sockets with Deep Bracket and 180° Clamp

| Part No. | Product No. | Contacts | 1      | 25     |
|----------|-------------|----------|--------|--------|
| 428162   | S-306-DB▲   | 6        | \$4.25 | \$3.86 |
| 428251   | S-318-DB▲   | 18       | 6.75   | 6.26   |
| 428269   | S-327-DB▲   | 27       | 8.89   | 8.16   |

### Replacement Drive Pins Series

- With cable clamps and caps



| Part No. | Prod. No. | Contacts | Length | 1      | 25     |
|----------|-----------|----------|--------|--------|--------|
| 448551   | 302R▲     | 2        | 0.687" | \$0.68 | \$0.57 |
| 448569   | 304R▲     | 4/6/8/10 | 0.718" | .43    | .411   |

## Cinch Jones Plugs and Sockets

### Series 2400 Multiple-Density Solder-Eyelet Connectors

Lower \$\$\$

Quantity SAVE



428197



428226



428277

- Current rating: 15A
- Current resistance: 1mΩ max.
- Operating voltage: 250VACrms
- Contact plating: cadmium
- Socket contacts have solder eyelets with 0.093" diameter
- Plug prongs are 0.250" wide and 0.55" thick
- For use in cable-to-cable & cable-to-panel applications
- Insulation material: molded monoblock, general purpose phenolic, black
- Contact material: plug-brass; socket-phosphor bronze
- Hood material: formed metal with dielectric liner

### Plugs with Hood and 180° Clamp

| Part No. | Product No. | Contacts | 1      | 25     |
|----------|-------------|----------|--------|--------|
| 428234   | P-2406-CCT  | 6        | \$7.89 | \$7.22 |
| 428197   | P-2408-CCT  | 8        | 10.39  | 9.48   |
| 427944   | P-2412-CCT▲ | 12       | 8.75   | 8.13   |

### Sockets with Hood and 180° Clamp

| Part No. | Product No. | Contacts | 1      | 25     |
|----------|-------------|----------|--------|--------|
| 428226   | S-2402-CCT▲ | 2        | \$7.25 | \$6.87 |
| 444681   | S-2406-CCT  | 6        | 8.49   | 6.50   |
| 444699   | S-2408-CCT  | 8        | 7.39   | 7.05   |
| 444648   | S-2410-CCT▲ | 10       | 9.07   | 8.24   |
| 444672   | S-2412-CCT▲ | 12       | 12.29  | 11.21  |

### Plugs with Angle Bracket

| Part No. | Product No. | Contacts | 1      | 25     |
|----------|-------------|----------|--------|--------|
| 428277   | P-2406-AB▲  | 6        | \$8.15 | \$7.41 |

### Socket with Angle Bracket

| Part No. | Product No. | Contacts | 1                        | 25                |
|----------|-------------|----------|--------------------------|-------------------|
| 444701   | S-2408-AB   | 8        | <del>\$8.45</del> \$7.85 | <del>\$5.89</del> |

### Plug with Deep Bracket

| Part No. | Product No. | Contacts | 1      | 25     |
|----------|-------------|----------|--------|--------|
| 428091   | P-2404-DB▲  | 4        | \$4.89 | \$4.58 |

### Socket with Shallow Bracket

| Part No. | Product No. | Contacts | 1      | 25     |
|----------|-------------|----------|--------|--------|
| 444656   | S-2412-SB▲  | 12       | \$6.49 | \$6.00 |

### Plug with Less Angle Bracket

| Part No. | Product No. | Contacts | 1      | 25     |
|----------|-------------|----------|--------|--------|
| 428189   | P-2406-LAB▲ | 6        | \$2.95 | \$2.70 |

### Socket with Less Angle Bracket

| Part No. | Product No. | Contacts | 1      | 25     |
|----------|-------------|----------|--------|--------|
| 444904   | S-2406-LAB▲ | 6        | \$3.25 | \$2.96 |

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Email us 24/7 at

[NewProducts@Jameco.com](mailto:NewProducts@Jameco.com)

with suggestions for products you'd like to see in future catalogs.



## .098"-Pitch AT Power Connectors for Motherboards & Power Supplies

- Voltage rating: 250V AC/DC
- Temperature range: -25°C to 85°C
- Insulation resistance: 1000MΩ min.
- Current rating: 7A AC/DC
- Withstanding volt.: 1500V/min.

**78326: AMP50G female 6-pin housing connector** • Material: nylon  
**78319: AMP501T terminal pin** • Material: tin-plated brass

\* Prepackaged: please order in increments of 10

| Part No. | Description             | L     | W     | H     | Dia   | Use With | 1      | 10      | 100     | 1000    |
|----------|-------------------------|-------|-------|-------|-------|----------|--------|---------|---------|---------|
| 78326    | 6-pin housing connector | 0.94" | 0.25" | 0.74" | —     | 78300    | \$ .35 | \$ .315 | \$ .252 | \$ .189 |
| 78319    | Power terminal pin, F   | 0.69" | —     | —     | 0.09" | 78326    | *      | .11     | .08     | .07     |



## .118"-Pitch ATX Power Connectors for Motherboards & Power Supplies

- Voltage rating: 250V AC/DC
- Temperature range: -25°C to 85°C
- Insulation resistance: 1000MΩ min.
- Current rating: 7A AC/DC
- Withstanding volt.: 1500V/min.

**147379: ATX male 20-pin edge mount connector**

- Material: nylon 66, UL-94V0
- Material of post: tin-plated brass
- Diameter of post: 0.045"
- Material: nylon 66, UL-94V0
- Material: tin-plated brass

\* Prepackaged: please order in increments of 10

| Part No. | Description              | L     | W    | H    | Dia    | Use With | 1      | 10     | 100    | 1000   |
|----------|--------------------------|-------|------|------|--------|----------|--------|--------|--------|--------|
| 147379   | 20-pin male connector    | 1.7"  | 0.4" | 0.6" | —      | —        | \$ .59 | \$ .53 | \$ .48 | \$ .36 |
| 147387   | 20-pin housing connector | 1.7"  | 0.4" | 0.8" | —      | 147395   | .59    | .53    | .48    | .36    |
| 147395   | Power terminal pin, F    | 0.59" | —    | —    | 0.068" | 147387   | *      | .12    | .11    | .10    |



## Power Connectors and Pins

### Connector & Housing Specifications:

- Voltage rating: 250VAC (Mate-N-Lock 600VAC)
- Operating temperature: -55°C to +105°C

### Crimp Pin Specifications:

- Material: tin plated brass
- Current rating: 1.5 amps
- Wire size range: 18-24 AWG
- Use crimp tool P/N 99443, below

### For 5.25" Disk Drives and Power Supplies

#### 42076 & 42068 Connector Housings:

- 0.200" pitch
- Keyed mating connectors
- External key bar indicates pin 1
- See below for extraction tools, P/Ns 131887 & 131879

Blue Part No. = Limited Quantity Available

| Part No. | Description                                 | 10     | 100    | 1000   |
|----------|---|--------|--------|--------|
| 109146   | 4-pin M vert. PCB mtg                       | \$ .65 | \$ .59 | \$ .53 |
| 117567   | 4-pin M PCB mounting, horizontal edge mount | .85    | .72    | .65    |
| 42076    | 4-pin M housing                             | .12    | .11    | .10    |
| 42068    | 4-pin F housing                             | .20    | .15    | .13    |
| 42730    | M crimp pin for 42076                       | .10    | .07    | .06    |
| 42650    | F crimp pin for 42068                       | .10    | .07    | .06    |

### For 3.5" Disk Drives and Power Supplies

- 0.100" pitch

| Part No. | Description            | 10     | 100    | 1000   |
|----------|------------------------|--------|--------|--------|
| 114931   | 4-pin F housing        | \$ .19 | \$ .17 | \$ .15 |
| 114921   | F crimp pin for 114931 | .11    | .095   | .08    |

| Part No. | Description                    | 1      | 100    | 1000   |
|----------|--------------------------------|--------|--------|--------|
| 115000   | 4-pin M rt. angle PCB mounting | \$ .35 | \$ .31 | \$ .28 |



## Non-Insulated Terminal D-Sub Crimping Tool

### 14-26 AWG

- Heavy-duty metal tool with cutter and insulated handles
- See above for crimp pins
- Coiled spring return
- Size: 7.3"L x 1.5"W



| Part No. | Product No. | 1      | 10     | 25     | 100    |
|----------|-------------|--------|--------|--------|--------|
| 99443    | HT202A      | \$9.49 | \$8.55 | \$7.69 | \$6.95 |

## Extraction Tools for Crimp Pins

- Quickly and easily extract .093" locking pins from interlocking connectors
- Length: 5"
- See above for crimp pins

**131887: Male tool for 42730**  
**131879: Female tool for 42650**



| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 131887   | HT319C      | \$11.55 | \$10.35 |
| 131879   | HT319B      | 11.85   | 9.03    |



## AMPMODU™ Pin & Receptacle Contacts

- Plating:  
 A: gold flash over 50μ" nickel entire area, 30μ" gold on contact area;  
 B: 30μ" gold over 50μ" nickel;  
 C: gold flash over 50μ" nickel entire contact, 15μ" gold on contact area;  
 D: 15μ" gold in contact area, 100μ" ~ 200μ" bright tin lead, all over 50μ" nickel;  
 E: preplated 50μ" ~ 150μ" bright tin;  
 F: 30μ" gold in contact area, 100μ" ~ 200μ" bright tin lead, all over 50μ" nickel
- Material: PB=phosphor bronze; BC=beryllium copper

\* Prepackaged: please order in increments of 5

Pin w/ Insulation Support, Crimp Snap-In (MOD IV)

For more AMPMODU Pin & Receptacle Contacts visit [www.jameco.com](http://www.jameco.com)

| Part No. | Product No. | Material | Plating | 1 | 5      |
|----------|-------------|----------|---------|---|--------|
| 736835   | 102107-2    | PB       | A       | * | \$ .33 |

### Standard Pressure Receptacle Contacts (MOD IV)

| Part No. | Product No. | Material | Plating | 1   | 5      |
|----------|-------------|----------|---------|-----|--------|
| 840616   | 86016-1     | BC       | B       | *   | \$ .43 |
| 840641   | 86016-5     | BC       | C       | *   | .34    |
| 527486   | 87523-6     | PB       | E       | *   | .14    |
| 527419   | 1-87523-6   | PB       | D       | *   | .25    |
| 987845   | 87667-1     | BC       | B       | .75 | .65    |
| 527507   | 87667-2     | BC       | A       | *   | .34    |
| 841352   | 87667-5     | BC       | C       | *   | .29    |
| 743082   | 1-87756-6   | PB       | D       | *   | .24    |

### Receptacle, Crimp Snap-In (MOD IV)

| Part No. | Product No. | Material | Plating | 1 | 5      |
|----------|-------------|----------|---------|---|--------|
| 893831   | 102316-6    | PB       | D       | * | \$ .35 |

### Receptacle, Crimp Snap-In (MOD IV 1/2)

| Part No. | Product No. | Material | Plating | 1 | 5       |
|----------|-------------|----------|---------|---|---------|
| 987079   | 87046-1     | BC       | C       | * | \$ .322 |
| 840675   | 87046-3     | BC       | A       | * | .378    |
| 911584   | 2-87195-1   | PB       | F       | * | .24     |
| 894016   | 102548-3    | BC       | C       | * | .297    |
| 737379   | 102548-6    | BC       | A       | * | .378    |
| 737707   | 103171-5    | PB       | F       | * | .243    |

⬆ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

## 42 New Major Brands



Just Added Over 65,000 New Products

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

AMP

## AMPMODU™ .100" (2.54mm) Standard Profile Shrouded Headers

- Housing: UL94V-0, black thermoplastic
- Insulation resistance: 5,000MΩ min. initial
- Dielectric w/standing voltage: 750Vrms @ sea level
- Operating temp.: -65°C to 105°C
- Current rating: 3A max. per contact
- 0.100" (2.54mm) centers w/ 0.025" square posts, copper alloy
- Plating:

A: Duplex plated, 0.000030 min. gold on contact area,  
0.0001-0.0002 min. tin/lead on solder area, w/ entire post underplated 0.000050 min. nickel;  
B: Duplex plated, 0.000015 min. gold on contact area,  
0.0001-0.0002 min. tin/lead on solder area, w/ entire post underplated 0.000050 min. nickel;  
C: 0.000100-0.000200 tin/lead, over 0.000050 nickel on entire post



737889



737854



737408



737563



894796



894622

NEW

## Straight w/ Stand-Offs, Single Row (MOD II)

| Part No. | Product No. | Contacts | Plating | 1      | 10     |
|----------|-------------|----------|---------|--------|--------|
| 737889   | 103414-1♣   | 3        | A ..... | \$1.25 | \$1.15 |
| 841117   | 3-102202-4♣ | 3        | B ..... | 1.16   | 1.06   |
| 759404   | 8-102202-4♣ | 3        | B ..... | 1.30   | 1.04   |
| 746902   | 103080-1♣   | 3        | C ..... | 1.22   | 1.17   |
| 737897   | 103414-2♣   | 4        | A ..... | 1.35   | 1.24   |
| 737176   | 102202-1♣   | 4        | B ..... | 1.28   | 1.18   |
| 752739   | 5-102202-1♣ | 4        | B ..... | 1.34   | 1.09   |
| 737900   | 103414-3♣   | 5        | A ..... | 2.05   | 1.76   |
| 737184   | 102202-2♣   | 5        | B ..... | 1.69   | 1.49   |
| 894307   | 103080-3♣   | 5        | C ..... | 2.45   | 1.95   |
| 737918   | 103414-4♣   | 6        | A ..... | 2.09   | 1.80   |
| 737192   | 102202-3♣   | 6        | B ..... | 1.69   | 1.55   |
| 746911   | 103080-4♣   | 6        | C ..... | 1.89   | 1.64   |
| 746718   | 102202-4♣   | 7        | B ..... | 1.95   | 1.80   |
| 746929   | 103080-5♣   | 7        | C ..... | 1.99   | 1.72   |
| 746970   | 103414-6♣   | 8        | A ..... | 1.95   | 1.94   |
| 737205   | 102202-5♣   | 8        | B ..... | 1.31   | 1.20   |
| 894340   | 103080-7♣   | 9        | C ..... | 3.79   | 3.05   |
| 746988   | 103414-8♣   | 10       | A ..... | 2.55   | 2.17   |
| 737213   | 102202-7♣   | 10       | B ..... | 2.45   | 2.07   |
| 887959   | 1-103414-0  | 12       | A ..... | 3.95   | 3.49   |
| 893793   | 102202-9♣   | 12       | B ..... | 3.99   | 3.25   |
| 744931   | 1-102202-0♣ | 13       | B ..... | 4.25   | 3.43   |
| 744940   | 1-102202-1♣ | 14       | B ..... | 3.05   | 2.59   |
| 744958   | 1-102202-2♣ | 15       | B ..... | 3.39   | 3.28   |
| 744966   | 1-102202-3♣ | 16       | B ..... | 3.29   | 2.81   |
| 744974   | 1-102202-7♣ | 20       | B ..... | 3.89   | 3.48   |

Right Angle w/ stand-offs,  
Single Row (MOD II)

| Part No. | Product No. | Contacts | Plating | 1      | 10     |
|----------|-------------|----------|---------|--------|--------|
| 737854   | 103361-1♣   | 3        | A ..... | \$1.27 | \$1.15 |
| 841141   | 3-102203-4♣ | 3        | B ..... | 1.28   | 1.16   |
| 737862   | 103361-2♣   | 4        | A ..... | 1.69   | 1.35   |
| 737221   | 102203-1♣   | 4        | B ..... | 1.59   | 1.28   |
| 746777   | 102523-1♣   | 4        | C ..... | 1.39   | 1.12   |
| 746937   | 103361-3♣   | 5        | A ..... | 1.99   | 1.72   |
| 737230   | 102203-2♣   | 5        | B ..... | 1.95   | 1.67   |
| 752747   | 5-102203-2♣ | 5        | B ..... | 1.85   | 1.57   |
| 737871   | 103361-4♣   | 6        | A ..... | 2.05   | 1.76   |
| 737248   | 102203-3♣   | 6        | B ..... | 1.99   | 1.72   |
| 746945   | 103361-5♣   | 7        | A ..... | 2.25   | 1.83   |
| 746726   | 102203-4♣   | 7        | B ..... | 2.09   | 1.75   |
| 746953   | 103361-6♣   | 8        | A ..... | 2.49   | 2.12   |
| 737256   | 102203-5♣   | 8        | B ..... | 2.29   | 1.97   |
| 746961   | 103361-8♣   | 10       | A ..... | 2.19   | 2.18   |
| 737264   | 102203-7♣   | 10       | B ..... | 3.85   | 3.08   |
| 745133   | 1-103361-0♣ | 12       | A ..... | 4.59   | 3.72   |
| 746734   | 102203-9♣   | 12       | B ..... | 4.39   | 3.53   |
| 744982   | 1-102203-1♣ | 14       | B ..... | 3.19   | 2.73   |
| 744991   | 1-102203-3♣ | 16       | B ..... | 5.39   | 4.35   |
| 745002   | 1-102203-7♣ | 20       | B ..... | 6.45   | 5.20   |

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product

⊕ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.

Straight w/ Detent Windows, 0.066" End  
Dim., Double Row (MOD II)

| Part No. | Product No. | Contacts | Plating | 1      | 10     |
|----------|-------------|----------|---------|--------|--------|
| 737627   | 103168-1♣   | 6        | A ..... | \$1.55 | \$1.38 |
| 737408   | 102618-1♣   | 6        | B ..... | 1.04   | .95    |
| 752763   | 5-102618-1♣ | 6        | B ..... | 1.15   | 1.05   |
| 737635   | 103168-2♣   | 8        | A ..... | 1.65   | 1.51   |
| 737416   | 102618-2♣   | 8        | B ..... | 1.55   | 1.37   |
| 737643   | 103168-3♣   | 10       | A ..... | 2.25   | 2.04   |
| 752771   | 5-103168-3♣ | 10       | A ..... | 2.25   | 2.03   |
| 737424   | 102618-3♣   | 10       | B ..... | 1.65   | 1.47   |
| 894673   | 103168-4♣   | 12       | A ..... | 2.35   | 2.26   |
| 737432   | 102618-4♣   | 12       | B ..... | 1.85   | 1.65   |
| 737651   | 103168-5♣   | 14       | A ..... | 2.65   | 2.42   |
| 737441   | 102618-5♣   | 14       | B ..... | 2.39   | 2.16   |
| 841133   | 87589-3♣    | 14       | C ..... | 2.95   | 2.70   |
| 894711   | 103168-6♣   | 16       | A ..... | 3.45   | 3.10   |
| 737459   | 102618-6♣   | 16       | B ..... | 2.25   | 2.04   |
| 894753   | 103168-7♣   | 18       | A ..... | 3.75   | 3.40   |
| 737467   | 102618-7♣   | 18       | B ..... | 4.35   | 3.92   |
| 737660   | 103168-8♣   | 20       | A ..... | 4.25   | 3.84   |
| 737475   | 102618-8♣   | 20       | B ..... | 3.19   | 2.90   |
| 887852   | 1-103168-0♣ | 24       | A ..... | 4.75   | 4.32   |
| 739711   | 1-102618-0♣ | 24       | B ..... | 3.75   | 3.41   |
| 739788   | 1-103168-1♣ | 26       | A ..... | 5.29   | 4.82   |
| 739729   | 1-102618-1♣ | 26       | B ..... | 4.15   | 3.58   |
| 987802   | 87589-9♣    | 26       | C ..... | 3.15   | 2.88   |
| 887764   | 1-102618-3♣ | 30       | B ..... | 4.55   | 4.12   |
| 739796   | 1-103168-8♣ | 40       | A ..... | 7.45   | 6.73   |
| 887772   | 1-102618-8♣ | 40       | B ..... | 8.19   | 7.46   |
| 907112   | 2-103168-3♣ | 50       | A ..... | 9.89   | 8.97   |

Straight w/ Detent Windows, 0.150" End  
Dim., Double Row (MOD II)

| Part No. | Product No. | Contacts | Plating | 1      | 10     |
|----------|-------------|----------|---------|--------|--------|
| 894796   | 103169-1♣   | 6        | A ..... | \$1.48 | \$1.27 |
| 894825   | 103169-2♣   | 8        | A ..... | 1.95   | 1.76   |
| 737678   | 103169-3♣   | 10       | A ..... | 2.35   | 2.10   |
| 737483   | 102619-3♣   | 10       | B ..... | 1.85   | 1.70   |
| 737686   | 103169-4♣   | 12       | A ..... | 2.65   | 2.40   |
| 894884   | 103169-5♣   | 14       | A ..... | 2.99   | 2.72   |
| 737491   | 102619-5♣   | 14       | B ..... | 2.39   | 2.16   |
| 894921   | 103169-6♣   | 16       | A ..... | 4.35   | 3.89   |
| 737504   | 102619-6♣   | 16       | B ..... | 3.95   | 3.51   |
| 894956   | 103169-7♣   | 18       | A ..... | 5.65   | 5.10   |
| 737694   | 103169-8♣   | 20       | A ..... | 3.85   | 3.48   |
| 737512   | 102619-8♣   | 20       | B ..... | 3.19   | 2.88   |
| 739809   | 1-103169-0♣ | 24       | A ..... | 5.79   | 5.30   |
| 887781   | 1-102619-0♣ | 24       | B ..... | 3.75   | 3.40   |
| 887879   | 1-103169-1♣ | 26       | A ..... | 5.15   | 4.65   |
| 739737   | 1-102619-1♣ | 26       | B ..... | 3.35   | 3.58   |
| 887895   | 1-103169-2♣ | 28       | A ..... | 9.65   | 8.59   |
| 887916   | 1-103169-5♣ | 34       | A ..... | 9.15   | 8.33   |
| 887799   | 1-102619-5♣ | 34       | B ..... | 7.15   | 6.46   |
| 887932   | 1-103169-8♣ | 40       | A ..... | 10.35  | 9.41   |

Right Angle w/ Detent Window, 0.066" End  
Dim., Double Row (MOD II)

| Part No. | Product No. | Contacts | Plating | 1      | 10     |
|----------|-------------|----------|---------|--------|--------|
| 737563   | 103166-1♣   | 6        | A ..... | \$1.34 | \$1.15 |
| 894198   | 102617-1♣   | 6        | B ..... | 1.16   | 1.12   |
| 737571   | 103166-2♣   | 8        | A ..... | 1.79   | 1.50   |
| 737387   | 102617-2♣   | 8        | B ..... | 1.45   | 1.22   |
| 948483   | 5-102617-2♣ | 8        | B ..... | 1.65   | 1.38   |
| 737580   | 103166-3♣   | 10       | A ..... | 2.49   | 2.12   |
| 894420   | 103166-4♣   | 12       | A ..... | 2.69   | 2.33   |
| 737598   | 103166-5♣   | 14       | A ..... | 3.25   | 2.76   |
| 894227   | 102617-5♣   | 14       | B ..... | 3.79   | 3.05   |
| 894462   | 103166-6♣   | 16       | A ..... | 4.95   | 4.35   |
| 894497   | 103166-7♣   | 18       | A ..... | 3.95   | 3.39   |
| 737601   | 103166-8♣   | 20       | A ..... | 4.19   | 3.60   |
| 737395   | 102617-8♣   | 20       | B ..... | 3.45   | 2.93   |
| 897765   | 87579-7♣    | 20       | C ..... | 3.75   | 3.38   |
| 887801   | 1-103166-0♣ | 24       | A ..... | 7.35   | 6.59   |
| 887730   | 1-102617-0♣ | 24       | B ..... | 4.85   | 4.18   |
| 887810   | 1-103166-1♣ | 26       | A ..... | 7.45   | 6.72   |
| 887748   | 1-102617-1♣ | 26       | B ..... | 5.85   | 5.29   |
| 887836   | 1-103166-3♣ | 30       | A ..... | 8.75   | 7.89   |
| 887844   | 1-103166-5♣ | 34       | A ..... | 9.79   | 8.79   |
| 739770   | 1-103166-8♣ | 40       | A ..... | 7.79   | 6.28   |
| 887756   | 1-102617-8♣ | 40       | B ..... | 8.99   | 7.75   |

Right Angle w/ Detent Window, 0.150" End  
Dim., Double Row (MOD II)

| Part No. | Product No. | Contacts | Plating | 1      | 10     |
|----------|-------------|----------|---------|--------|--------|
| 894551   | 103167-1♣   | 8        | A ..... | \$1.69 | \$1.65 |
| 737619   | 103167-2♣   | 10       | A ..... | 2.05   | 2.07   |
| 894091   | 102570-3♣   | 10       | B ..... | 1.69   | 1.65   |
| 894163   | 102570-4♣   | 12       | B ..... | 2.25   | 1.92   |
| 894593   | 103167-4♣   | 14       | A ..... | 4.65   | 3.74   |
| 894622   | 103167-7♣   | 20       | A ..... | 3.59   | 3.28   |
| 887721   | 1-102570-1♣ | 26       | B ..... | 4.35   | 3.75   |

Lowest  
Price  
Guarantee



Have you found a product  
at a lower print-advertised price?  
We'll beat that price by 10%,  
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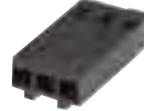


**AMP****AMPMODU™ .100" (2.54mm) Receptacles****Single Row, Non-Polarized, Crimp Snap-In (MOD IV)**

526900

- Black thermoplastic, flame retardant

| Part No. | Product No.          | Pos. | Width (in.) | 1     | 10     |
|----------|----------------------|------|-------------|-------|--------|
| 757345   | 7-87499-2 <b>R</b> ♣ | 1    | 0.105       | \$.25 | \$.233 |
| 526871   | 87499-3              | 2    | 0.205       | .99   | .95    |
| 759711   | 87499-4 <b>R</b> ♣   | 2    | 0.205       | .40   | .371   |
| 526889   | 87499-5              | 3    | 0.305       | \$.64 | .466   |
| 526897   | 87499-7              | 4    | 0.405       | .55   | .52    |
| 526900   | 87499-9♣             | 5    | 0.505       | .42   | .378   |
| 743031   | 1-87499-1 <b>R</b> ♣ | 6    | 0.605       | .50   | .466   |
| 987642   | 87499-1 <b>R</b> ♣   | 7    | 0.705       | .77   | .72    |
| 526918   | 1-87499-3            | 8    | 0.805       | .51   | .51    |
| 893419   | 1-87499-5 <b>R</b> ♣ | 9    | 0.905       | .74   | .72    |
| 743040   | 1-87499-7 <b>R</b> ♣ | 10   | 1.005       | .66   | .60    |

**Single Row w/ Detents, Polarized, Crimp Snap-In (MOD IV)**

496122

- Glass filled nylon, flame retardant

| Part No. | Product No.           | Pos. | Width (in.) | 1     | 10     |
|----------|-----------------------|------|-------------|-------|--------|
| 496122   | 102241-1              | 3    | 0.300       | \$.28 | \$.248 |
| 496270   | 102241-2♣             | 4    | 0.400       | .28   | .248   |
| 496237   | 102241-3              | 5    | 0.500       | .28   | .31    |
| 496245   | 102241-4♣             | 6    | 0.600       | .30   | .266   |
| 737272   | 102241-5 <b>R</b> ♣   | 7    | 0.700       | .47   | .427   |
| 737281   | 102241-6 <b>R</b> ♣   | 8    | 0.800       | .43   | .405   |
| 737299   | 102241-8 <b>R</b> ♣   | 10   | 1.000       | .63   | .504   |
| 745011   | 1-102241-0 <b>R</b> ♣ | 12   | 1.200       | .82   | .74    |
| 745029   | 1-102241-2 <b>R</b> ♣ | 14   | 1.400       | .77   | .70    |
| 745037   | 1-102241-3 <b>R</b> ♣ | 15   | 1.500       | 1.04  | .95    |
| 745045   | 1-102241-6 <b>R</b> ♣ | 18   | 1.800       | 1.30  | 1.20   |

**Double Row, Non-Polarized, Crimp Snap-In, Short Entry (MOD IV)**

759691

- Glass filled nylon, flame retardant

| Part No. | Product No.          | Pos. | Width (in.) | 1     | 10    |
|----------|----------------------|------|-------------|-------|-------|
| 752296   | 4-87456-9 <b>R</b> ♣ | 4    | 0.205       | \$.99 | \$.90 |
| 753264   | 5-87456-0 <b>R</b> ♣ | 4    | 0.205       | 1.29  | 1.21  |
| 759674   | 87456-1 <b>R</b> ♣   | 6    | 0.305       | 1.25  | 1.13  |
| 759691   | 87456-2 <b>R</b> ♣   | 6    | 0.305       | 1.06  | 1.02  |
| 841070   | 87456-3 <b>R</b> ♣   | 8    | 0.405       | 1.29  | 1.21  |
| 841109   | 87456-5 <b>R</b> ♣   | 10   | 0.505       | .93   | .92   |
| 526854   | 87456-6♣             | 10   | 0.505       | 1.27  | 1.19  |
| 746574   | 1-87456-0 <b>R</b> ♣ | 14   | 0.705       | 1.24  | 1.20  |
| 743007   | 1-87456-1 <b>R</b> ♣ | 16   | 0.805       | 1.55  | 1.38  |
| 743015   | 1-87456-2 <b>R</b> ♣ | 16   | 0.805       | 1.47  | 1.26  |
| 743023   | 1-87456-6 <b>R</b> ♣ | 20   | 1.005       | 1.55  | 1.52  |
| 911672   | 2-87456-0 <b>R</b> ♣ | 24   | 1.205       | 2.59  | 2.37  |
| 911728   | 2-87456-2 <b>R</b> ♣ | 26   | 1.305       | 2.35  | 2.16  |
| 945063   | 4-87456-0 <b>R</b> ♣ | 50   | 2.505       | 3.79  | 3.49  |

**Double Row w/ Detents & Strain Relief, Polarized (MOD IV)**

841387

- Black thermoplastic, flame retardant

| Part No. | Product No.        | Pos. | Width (in.) | 1    | 10   |
|----------|--------------------|------|-------------|------|------|
| 841387   | 87922-1 <b>R</b> ♣ | 10   | 0.500       | 1.95 | 1.92 |
| 987992   | 87922-4 <b>R</b> ♣ | 16   | 0.800       | 3.29 | 2.99 |
| 988039   | 87922-5 <b>R</b> ♣ | 18   | 0.900       | 5.25 | 4.82 |
| 987870   | 87733-1 <b>R</b> ♣ | 20   | 1.000       | 3.79 | 3.39 |

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

**Double Row w/ Detents, Polarized, Crimp Snap-In (MOD IV)**

496165

- Glass filled nylon, flame retardant

♣ Blue Part No. = Limited Quantity Available

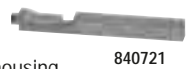
| Part No. | Product No.          | Pos. | Width (in.) | 1     | 10    |
|----------|----------------------|------|-------------|-------|-------|
| 841168   | 87631-1 <b>R</b> ♣   | 6    | 0.300       | \$.78 | \$.76 |
| 841184   | 87631-2 <b>R</b> ♣   | 6    | 0.300       | 1.00  | .91   |
| 841221   | 87631-3 <b>R</b> ♣   | 8    | 0.400       | 1.35  | 1.17  |
| 841248   | 87631-4 <b>R</b> ♣   | 8    | 0.400       | 1.23  | 1.00  |
| 841272   | 87631-5 <b>R</b> ♣   | 10   | 0.500       | 1.35  | 1.25  |
| 526862   | 87631-6♣             | 10   | 0.500       | 1.29  | 1.05  |
| 841299   | 87631-7 <b>R</b> ♣   | 12   | 0.600       | 1.45  | 1.30  |
| 841328   | 87631-8 <b>R</b> ♣   | 12   | 0.600       | 1.44  | 1.30  |
| 759738   | 87631-9 <b>R</b> ♣   | 14   | 0.700       | 1.55  | 1.34  |
| 743058   | 1-87631-0 <b>R</b> ♣ | 14   | 0.700       | 1.47  | 1.37  |
| 746582   | 1-87631-1 <b>R</b> ♣ | 16   | 0.800       | 1.75  | 1.55  |
| 743066   | 1-87631-2 <b>R</b> ♣ | 16   | 0.800       | 1.65  | 1.50  |
| 746591   | 1-87631-5 <b>R</b> ♣ | 20   | 1.000       | 1.85  | 1.69  |
| 743074   | 1-87631-6 <b>R</b> ♣ | 20   | 1.000       | 1.75  | 1.59  |
| 746603   | 1-87631-9 <b>R</b> ♣ | 24   | 1.200       | 2.05  | 1.78  |
| 749610   | 2-87631-0 <b>R</b> ♣ | 24   | 1.200       | 2.55  | 2.27  |
| 749628   | 2-87631-1 <b>R</b> ♣ | 26   | 1.300       | 2.45  | 2.16  |
| 838701   | 2-87631-2 <b>R</b> ♣ | 26   | 1.300       | 2.29  | 1.95  |
| 911761   | 2-87631-4 <b>R</b> ♣ | 28   | 1.400       | 2.74  | 2.66  |
| 749636   | 2-87631-6 <b>R</b> ♣ | 30   | 1.500       | 1.95  | 1.89  |
| 749644   | 2-87631-9 <b>R</b> ♣ | 34   | 1.700       | 2.95  | 2.71  |
| 841803   | 3-87631-6 <b>R</b> ♣ | 40   | 2.000       | 2.45  | 2.39  |
| 950508   | 5-87631-2 <b>R</b> ♣ | 60   | 3.000       | 4.95  | 4.39  |

**Double Row, Center Polarized, Crimp Snap-In (MOD IV)**

496309

- Black thermoplastic, flame retardant

| Part No. | Product No.           | Pos. | Width (in.) | 1      | 10    |
|----------|-----------------------|------|-------------|--------|-------|
| 496309   | 102387-1              | 10   | 0.680       | \$1.16 | \$.95 |
| 496157   | 102387-2♣             | 14   | 0.880       | .96    | 1.18  |
| 496165   | 102387-3              | 16   | 0.980       | \$1.99 | 1.55  |
| 496173   | 102387-4♣             | 20   | 1.180       | 1.65   | 1.62  |
| 496181   | 102387-6♣             | 26   | 1.480       | 2.09   | 1.90  |
| 496190   | 102387-8♣             | 34   | 1.880       | \$3.15 | 2.25  |
| 496202   | 102387-9♣             | 40   | 2.180       | 2.59   | 2.39  |
| 745053   | 1-102387-3 <b>R</b> ♣ | 44   | 2.380       | 3.65   | 3.40  |
| 496211   | 1-102387-0♣           | 50   | 2.680       | 2.37   | 2.79  |
| 739673   | 1-102387-1 <b>R</b> ♣ | 60   | 3.180       | 4.05   | 3.68  |
| 739681   | 1-102387-2 <b>R</b> ♣ | 64   | 3.380       | 4.45   | 3.59  |

**Keying Plugs**

840721

- 840721: Plugs directly into housing
- 526926: Plugs into standard or intermediate pressure receptacle contacts

526926

- Prepackaged: please order in increments of 10

| Part No. | Product No.        | 10     | 100   |
|----------|--------------------|--------|-------|
| 840721   | 87077-2 <b>R</b> ♣ | \$.116 | \$.09 |
| 526926   | 86286-1            | .15    | .14   |

**Crimping Tools**

see page 292

**AMP****AMPMODU™ Locking Clip Contact and Housings**

759658

840780

840819

- Mates with 0.025" (0.64mm) square posts
- Contact current: 3A
- Design permits end-to-end stacking
- 94V-0 rated glass-filled polyester housing
- Termination resistance: 12mΩ max (gold); 16mΩ max. (tin)

**Single Row**

| Part No. | Product No.          | Positions | 1     | 10    | 100   |
|----------|----------------------|-----------|-------|-------|-------|
| 759658   | 87175-2 <b>R</b> ♣   | 1         | \$.79 | \$.73 | \$.68 |
| 840780   | 87175-6 <b>R</b> ♣   | 2         | .69   | .64   | .63   |
| 840819   | 87175-8 <b>R</b> ♣   | 3         | 1.13  | 1.03  | .76   |
| 742961   | 1-87175-0 <b>R</b> ♣ | 4         | .95   | .82   | .77   |
| 742979   | 1-87175-2 <b>R</b> ♣ | 5         | .98   | .85   | .78   |
| 746566   | 1-87175-4 <b>R</b> ♣ | 6         | 1.69  | 1.54  | 1.42  |

**Locking Clip Contact**

- Plating: 30μ" gold in contact area, gold flash on remainder, over 50μ" nickel



| Part No. | Product No.        | AWG   | 1     | 10    | 100   |
|----------|--------------------|-------|-------|-------|-------|
| 840755   | 87165-1 <b>R</b> ♣ | 26-22 | \$.41 | \$.38 | \$.35 |

**.100" Non-Polarized Connector Housings & Crimp Pins**

- Mates with 0.025" square post on pattern of 0.100" centers (male headers, see pg 126)
- Current rating: 1A
- Housing material: plastic
- Pin material: brass/tin plated
- Pin wire gauge: 26-22 AWG
- Temperature rating: -55°C to +105°C
- Use 159266 pin crimper, pg 292 and 100766 crimp pin, below



A FORMER EXCLUSIVE

100766

145358

♣ Blue Part No. = Limited Quantity Available

**Single Row**

| Part No. | Cross Ref.     | Contacts | 1     | 10    | 100   | 1000  |
|----------|----------------|----------|-------|-------|-------|-------|
| 100812   | SCH2 <b>R</b>  | 2        | \$.26 | \$.23 | \$.21 | \$.17 |
| 157383   | SCH3 <b>R</b>  | 3        | .27   | .24   | .22   | .18   |
| 100803   | SCH4 <b>R</b>  | 4        | .28   | .25   | .23   | .19   |
| 163686   | SCH5 <b>R</b>  | 5        | .30   | .27   | .25   | .22   |
| 103211   | SCH6 <b>R</b>  | 6        | .34   | .31   | .27   | .21   |
| 103202   | SCH8 <b>R</b>  | 8        | .39   | .35   | .29   | .25   |
| 103191   | SCH10 <b>R</b> | 10       | .42   | .39   | .36   | .31   |
| 103182   | SCH20 <b>R</b> | 20       | .49   | .45   | .39   | .35   |
| 103158   | SCH36 <b>R</b> | 36       | .49   | .45   | .39   | .35   |

**Double Row**

| Part No. | Cross Ref.     | Contacts | 1     | 10    | 100   | 1000  |
|----------|----------------|----------|-------|-------|-------|-------|
| 103254   | DCH8 <b>R</b>  | 8        | \$.59 | \$.53 | \$.45 | \$.39 |
| 157420   | DCH10 <b>R</b> | 10       | .69   | .62   | .55   | .49   |
| 157438   | DCH14 <b>R</b> | 14       | .73   | .71   | .69   | .59   |
| 103238   | DCH16 <b>R</b> | 16       | .79   | .71   | .64   | .58   |
| 103230   | DCH20 <b>R</b> | 20       | .99   | .89   | .79   | .69   |
| 157462   | DCH40 <b>R</b> | 40       | 1.09  | .99   | .89   | .75   |
| 157471   | DCH50 <b>R</b> | 50       | .65   | .59   | .53   | .48   |

**Crimp Pins for Single/Double Row Housings**

- Prepackaged: please order in increments of 10

| Part No. | Cross Ref.    | Contacts | 10    | 100   | 1000  |
|----------|---------------|----------|-------|-------|-------|
| 100766   | FCH1 <b>R</b> | Fem. pin | \$.14 | \$.11 | \$.07 |
| 145358   | MCH1 <b>R</b> | Male pin | .15   | .135  | .12   |

♣ RoHS compliant product

♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.

Color Code Legend

New Sale Lower\$ QtySave

Order 24/7 Toll Free 1-800-831-4242

141

## .100" Low Profile Keyed Shrouded Header & Connector

CD-ROM 4-Pin Headers and Connector



- Voltage rating: 250V AC/DC
- Current rating: 3A AC/DC
- Insulation resistance: 1000MΩ min.
- Connector material: PBT, 30% glass
- Header material: PBT + 30% glass
- Withstanding voltage: 1000V AC/ 1 minute
- Pin material: tin-plated brass
- Recommend crimp tool P/N 99443, pg 292
- \*Prepackaged: please order in increments of 10

| Part No. | Description      | 1      | 10      | 100    | 1000   |
|----------|------------------|--------|---------|--------|--------|
| 152741   | Straight header  | \$ .45 | \$ .39  | \$ .35 | \$ .29 |
| 152726   | Rt. angle header | \$ .55 | \$ .50  | \$ .40 | \$ .30 |
| 152733   | Single w/ latch  | \$ .35 | \$ .292 | \$ .24 | \$ .18 |
| 181673   | Female pins      | \$ .11 | \$ .08  | \$ .06 |        |

† P/N 152733 requires 4 pins (P/N 181673)

## .100" Low-Profile Male Shrouded Headers

- Rating: 1A (max.) @ 250VDC
- Contact resistance: 15mΩ max.
- Features: UL recognized, CSA certified; 0.025" square post mates with sockets on 0.100" x 0.100" grid
- Contact: phosphor bronze, gold plated
- Use with IDC socket connectors, right



### Straight Male Headers

| Part No. | Description | 1      | 10     | 100    | 1000    |
|----------|-------------|--------|--------|--------|---------|
| 67812    | 10-pin      | \$ .39 | \$ .35 | \$ .32 | \$ .28  |
| 68179    | 16-pin      | \$ .44 | \$ .40 | \$ .35 | \$ .32  |
| 68292    | 20-pin      | \$ .49 | \$ .47 | \$ .39 | \$ .23  |
| 68372    | 26-pin      | \$ .54 | \$ .42 | \$ .35 | \$ .21  |
| 68582    | 34-pin      | \$ .79 | \$ .65 | \$ .46 | \$ .31  |
| 181105   | 40-pin      | \$ .75 | \$ .60 | \$ .45 | \$ .315 |

## PANAVISE IDC Bench Press and Cable Cutter

Designed for low to medium volume mass termination of various IDC connectors on flat ribbon cable.



| Part No. | Prod. No. | Description | Wt. (lbs.) | 1        | 10       |
|----------|-----------|-------------|------------|----------|----------|
| 27174    | M505      | Bench press | 7.0        | \$179.95 | \$159.95 |

### M505 Accessories

|       |      |              |     |         |         |
|-------|------|--------------|-----|---------|---------|
| 27182 | M507 | Cable cutter | 0.9 | \$66.95 | \$61.95 |
| 27203 | M510 | Base plate   | 0.5 | 26.49   | 24.95   |

## AMP Pistol Hand Grip Tool

- Use with AMPMODU IDC Connectors
- Manual tool



| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 526643   | 465644-1    | \$12.39 | \$11.76 |

▲ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

## AMP .100" AMPLATCH™ Ribbon Cable Connectors

Low-Profile Shrouded Headers w/ 0.150" End Dimension, Dual Row, 0.100" Centers

- 0.120" solder tail
- 0.025" square posts
- Housing: black thermoplastic, UL94V-0 rated
- Contact: phosphor bronze
- Plating:
  - A: 30μ" gold in contact area, 100μ" ~ 200μ" tin/lead on solder tail, all over 50μ" nickel;
  - B: 30μ" gold on mating area, 100μ" min. tin on solder end, all over 50μ" nickel;
  - C: 15μ" gold in contact area, 100μ" ~ 200μ" tin/lead on solder tail, all over 50μ" nickel;
  - D: 15μ" min. gold on mating area, 100μ" min. tin on solder end, all over 50μ" on entire post



### Straight

| Part No. | Product No. | Pos. | Plating | 1       | 10      | 100     |
|----------|-------------|------|---------|---------|---------|---------|
| 496051   | 103309-1    | 10   | A       | \$ .59  | \$ .57  | \$ .55  |
| 753563   | 5103309-1   | 10   | B       | \$ .55  | \$ .51  | \$ .47  |
| 496042   | 103308-1    | 10   | C       | \$ .69  | \$ .63  | \$ .59  |
| 850216   | 5103308-1   | 10   | D       | \$ .65  | \$ .61  | \$ .56  |
| 737715   | 103309-2    | 14   | A       | \$ .89  | \$ .84  | \$ .78  |
| 753571   | 5103309-2   | 14   | B       | \$ .85  | \$ .77  | \$ .74  |
| 496069   | 103308-2    | 14   | C       | \$ .63  | \$ .58  | \$ .54  |
| 850241   | 5103308-2   | 14   | D       | \$ 1.25 | \$ 1.15 | \$ 1.09 |
| 496077   | 103309-3    | 16   | A       | \$ 1.99 | \$ 1.89 | \$ 1.79 |
| 753580   | 5103309-3   | 16   | B       | \$ 1.39 | \$ 1.15 | \$ .99  |
| 496149   | 103308-3    | 16   | C       | \$ .85  | \$ .79  | \$ .68  |
| 850241   | 5103308-3   | 16   | D       | \$ 1.25 | \$ 1.15 | \$ 1.09 |
| 496093   | 103309-5    | 20   | A       | \$ 1.39 | \$ 1.29 | \$ 1.09 |
| 753598   | 5103309-5   | 20   | B       | \$ 1.39 | \$ 1.25 | \$ 1.19 |
| 496085   | 103308-5    | 20   | C       | \$ 1.15 | \$ 1.05 | \$ .92  |
| 753539   | 5103308-5   | 20   | D       | \$ 1.69 | \$ 1.54 | \$ 1.45 |
| 745125   | 1-103308-3  | 24   | C       | \$ 2.19 | \$ 1.97 | \$ 1.81 |
| 496106   | 103309-6    | 26   | A       | \$ 1.65 | \$ 1.29 | \$ 1.15 |
| 753601   | 5103309-6   | 26   | B       | \$ 1.65 | \$ 1.48 | \$ 1.39 |
| 496296   | 103308-6    | 26   | C       | \$ 1.49 | \$ 1.39 | \$ 1.35 |
| 850275   | 5103308-6   | 26   | D       | \$ 1.45 | \$ 1.15 | \$ .99  |
| 737723   | 103309-7    | 34   | A       | \$ 1.99 | \$ 1.49 | \$ 1.35 |
| 496034   | 103308-7    | 34   | C       | \$ 1.79 | \$ 1.65 | \$ 1.39 |
| 753547   | 5103308-7   | 34   | D       | \$ 1.85 | \$ 1.49 | \$ 1.35 |
| 737731   | 103309-8    | 40   | A       | \$ 2.09 | \$ 1.89 | \$ 1.82 |
| 496114   | 103308-8    | 40   | C       | \$ 1.79 | \$ 1.65 | \$ 1.39 |
| 753555   | 5103308-8   | 40   | D       | \$ 1.45 | \$ 1.32 | \$ 1.25 |
| 739825   | 1-103309-0  | 50   | A       | \$ 2.65 | \$ 2.27 | \$ 2.26 |
| 739817   | 1-103308-0  | 50   | C       | \$ 1.99 | \$ 1.79 | \$ 1.53 |

### Right Angle

| Part No. | Product No. | Pos. | Plating | 1       | 10      | 100     |
|----------|-------------|------|---------|---------|---------|---------|
| 496131   | 103310-1    | 10   | C       | \$ .55  | \$ .53  | \$ .51  |
| 753619   | 5103310-1   | 10   | D       | \$ .89  | \$ .74  | \$ .65  |
| 737791   | 103311-1    | 10   | A       | \$ .65  | \$ .62  | \$ .61  |
| 753635   | 5103311-1   | 10   | B       | \$ .65  | \$ .59  | \$ .57  |
| 737740   | 103310-2    | 14   | C       | \$ .89  | \$ .81  | \$ .75  |
| 753627   | 5103310-2   | 14   | D       | \$ 1.19 | \$ .95  | \$ .86  |
| 737803   | 103311-2    | 14   | A       | \$ 2.75 | \$ 2.49 | \$ 2.38 |
| 737758   | 103310-3    | 16   | C       | \$ .62  | \$ .60  | \$ .60  |
| 951332   | 5103310-3   | 16   | D       | \$ .99  | \$ .79  | \$ .69  |
| 737811   | 103311-3    | 16   | A       | \$ 1.05 | \$ .95  | \$ .89  |
| 737766   | 103310-5    | 20   | C       | \$ 1.09 | \$ .99  | \$ .97  |
| 951375   | 5103310-5   | 20   | D       | \$ 1.09 | \$ .99  | \$ .90  |
| 737820   | 103311-5    | 20   | A       | \$ 1.59 | \$ 1.42 | \$ 1.34 |
| 737774   | 103310-6    | 26   | C       | \$ 1.29 | \$ 1.19 | \$ 1.09 |
| 737838   | 103311-6    | 26   | A       | \$ 2.15 | \$ 1.59 | \$ 1.47 |
| 895035   | 103310-7    | 34   | C       | \$ 3.99 | \$ 3.89 | \$ 3.79 |
| 737782   | 103310-8    | 40   | C       | \$ 4.55 | \$ 4.19 | \$ 3.49 |
| 737846   | 103311-8    | 40   | A       | \$ 2.89 | \$ 2.59 | \$ 2.45 |
| 739833   | 1-103310-0  | 50   | C       | \$ 2.65 | \$ 2.39 | \$ 2.05 |

## .100" & 2mm IDC Socket Connectors

### Double Row

- Mates with 2 rows of .025" Sq. or Dia. posts on patterns of .100" centers (male headers, see below)
- Current rating: 1A
- Industry standard IDC socket (plastic)
- Temperature rating: -55°C to +105°C
- Use crimp P/N 73252, pg 143



Quantity SAVE

Blue Part No. = Limited Quantity Available

### Polarized IDC Socket Connectors

| Part No. | Cross Ref. No. | Contacts | 1      | 10     | 100    | 1000   |
|----------|----------------|----------|--------|--------|--------|--------|
| 32492    | S10            | 10       | \$ .29 | \$ .25 | \$ .19 | \$ .15 |
| 153947   | S14            | 14       | \$ .32 | \$ .27 | \$ .21 | \$ .16 |
| 119467   | S16            | 16       | \$ .35 | \$ .29 | \$ .22 | \$ .17 |
| 32521    | S20            | 20       | \$ .39 | \$ .32 | \$ .25 | \$ .18 |
| 32563    | S26            | 26       | \$ .45 | \$ .35 | \$ .29 | \$ .19 |
| 32644    | S34            | 34       | \$ .49 | \$ .39 | \$ .35 | \$ .25 |
| 32678    | S40            | 40       | \$ .55 | \$ .45 | \$ .39 | \$ .29 |
| 100386   | IDC440         | 44 (2mm) | \$ .99 | \$ .89 | \$ .71 | \$ .53 |
| 32707    | S50            | 50       | \$ .65 | \$ .55 | \$ .45 | \$ .35 |
| 32759    | S60            | 60       | \$ .75 | \$ .68 | \$ .61 | \$ .50 |

\*2mm pin spacing

### Non-Polarized IDC Socket Connectors

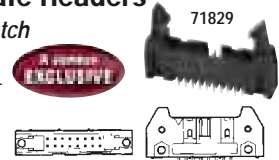
| Part No. | Cross Ref. No. | Contacts | 1      | 10      | 100     | 1000    |
|----------|----------------|----------|--------|---------|---------|---------|
| 138376   | SN10           | 10       | \$ .35 | \$ .32  | \$ .28  | \$ .24  |
| 138325   | SN20           | 20       | \$ .45 | \$ .405 | \$ .324 | \$ .243 |
| 138333   | SN26           | 26       | \$ .39 | \$ .35  | \$ .32  | \$ .24  |
| 138341   | SN34           | 34       | \$ .45 | \$ .405 | \$ .324 | \$ .243 |
| 138350   | SN40           | 40       | \$ .45 | \$ .405 | \$ .324 | \$ .243 |
| 138368   | SN50           | 50       | \$ .65 | \$ .59  | \$ .514 | \$ .385 |

## .100" (2.5mm) Straight Male Headers

### With Standard Latch

### Double Row

- 0.1" contact center
- Mount vertical
- Keying slot
- Use with IDC socket connectors, above



| Part No. | Description | 1       | 10      | 100     | 500     |
|----------|-------------|---------|---------|---------|---------|
| 117664   | 10-pin      | \$1.29  | \$1.16  | \$ .99  | \$ .61  |
| 71829    | 20-pin      | \$ 1.39 | \$ 1.25 | \$ 1.13 | \$ .95  |
| 71933    | 26-pin      | \$ 1.49 | \$ 1.25 | \$ .99  | \$ .89  |
| 72216    | 50-pin      | \$ 1.85 | \$ 1.65 | \$ 1.49 | \$ 1.35 |

### Other Manufacturers — Great Deals

|        |        |         |         |         |        |
|--------|--------|---------|---------|---------|--------|
| 687720 | 14-pin | \$1.31  | \$1.17  | \$1.03  | \$ .94 |
| 687711 | 40-pin | \$ 1.59 | \$ 1.39 | \$ 1.09 | \$ .91 |

## .100" IDC Plug Connectors

### Double Row

- Plastic
- 0.100" x 0.100" grid
- Shrouded header w/o mounting ears
- Contact: gold-plated phosphor bronze
- Use with IDC socket for connectors, above



Quantity SAVE

| Part No. | Cross Ref. No. | Contacts | 1       | 10      | 100     |
|----------|----------------|----------|---------|---------|---------|
| 29188    | P40            | 40       | \$1.95  | \$1.75  | \$1.49  |
| 29217    | P50            | 50       | \$ 1.95 | \$ 1.66 | \$ 1.25 |



## .100" (2.54mm) Female Header Receptacles

- Gold plated contacts
- 0.1" contact center

**Right Angle Mount (Side Entry)**

| Part No. | Contacts | Type       | 1      | 10     | 100    | 500    |
|----------|----------|------------|--------|--------|--------|--------|
| 71160    | 20       | Double row | \$1.25 | \$1.10 | \$ .99 | \$ .85 |

**Vertical Mount (Top Entry)**

| Part No. | Contacts | Type         | 1     | 10    | 100   | 500   |
|----------|----------|--------------|-------|-------|-------|-------|
| 70755    | 8        | Single row   | \$.59 | \$.53 | \$.43 | \$.35 |
| 200782   | 12       | Single row   | .77   | .68   | .374  | .328  |
| 308592   | 16       | Single row   | .58   | .48   | .31   | .243  |
| 308567   | 20       | Single row   | .69   | .57   | .37   | .289  |
| 70720    | 16       | Double row   | .89   | .79   | .72   | .65   |
| 70827    | 20       | Double row   | .99   | .89   | .71   | .53   |
| 105056   | 30       | Double row   | 1.09  | .98   | .88   | .74   |
| 111705   | 40       | Double (Tin) | 1.29  | 1.15  | .99   | .89   |

**Other Manufacturers — Great Deals**

|        |    |            |       |       |       |       |
|--------|----|------------|-------|-------|-------|-------|
| 454539 | 30 | Double row | \$.99 | \$.89 | \$.80 | \$.67 |
| 163862 | 34 | Double row | 1.05  | .94   | .85   | .71   |

## IDC Connector Crimping Tool

- Use for IDC socket connectors
- Crimping distance: 27.5mm to 6mm (with attachment)
- Cushioned red handles
- Size: 9.2" x 3.0"W
- Weight: 1.1 lbs.

| Part No. | Product No. | 1       | 10      | 25      |
|----------|-------------|---------|---------|---------|
| 73252    | HT214       | \$15.95 | \$14.39 | \$12.95 |

## AMP Insertion Tool

- For use with Universal Mate-N-Lok II Terminals

| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 527734   | 91002-1     | \$19.19 | \$18.22 |

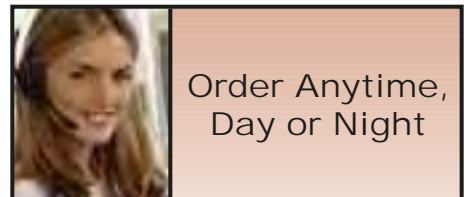
## AMP Extraction Tools

**Lower \$\$\$**

| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 421411   | 189727-1    | \$17.99 | \$17.15 |
| 526660   | 455822-2    | \$49.99 | 18.79   |

- 421411: Use w/ mini universal Mate-N-Lok contacts
- 526660: Use with miniature rectangular connectors

| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 421411   | 189727-1    | \$17.99 | \$17.15 |
| 526660   | 455822-2    | \$49.99 | 18.79   |



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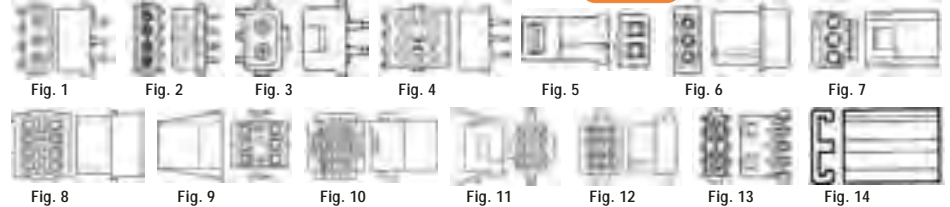
RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

| Color Code Legend        |
|--------------------------|
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## AMP Commercial MATE-N-LOK™ Connectors & Terminals

- Fully polarized nylon housing
- Voltage rating: 350VAC or VDC
- Hot side egg crate design for safety
- Dielectric withstanding voltage: 1.5KVAC between adjacent circuits
- Insulation resistance: 500MΩ min. initial between adjacent circuits
- Durability: 50 cycles, mating and unmating
- UL94V-2 rated housing

**Lower \$\$\$**



\* Prepackaged: please order in increments of 10

### PCB In-Line Vert. Pin Header w/ Detent Lock (Fig. 1)

| Part No. | Product No. | Positions | 1     | 10    | 100   |
|----------|-------------|-----------|-------|-------|-------|
| 421340   | 350209-1    | 2         | \$.41 | \$.36 | \$.32 |
| 679607   | 350210-1    | 3         | .56   | .54   | .523  |
| 421358   | 350211-1    | 4         | .65   | .59   | .534  |
| 679674   | 350214-1    | 16        | .95   | .90   | .86   |

### PCB In-Line Vert. Socket Header w/ Detent (Fig. 2)

| Part No. | Product No. | Positions | 1     | 25    | 50    |
|----------|-------------|-----------|-------|-------|-------|
| 679682   | 770997-1    | 4         | \$.96 | \$.91 | \$.87 |

### PCB In-Line Vert. Pin Header w/ Positive Lock (Fig. 3)

| Part No. | Product No. | Positions | 1     | 25    | 50     |
|----------|-------------|-----------|-------|-------|--------|
| 679586   | 350539-1    | 2         | \$.46 | \$.44 | \$.418 |
| 679594   | 350541-1    | 3         | 1.22  | 1.16  | 1.12   |
| 679615   | 350543-1    | 4         | 1.03  | .98   | .93    |

### PCB Dual Row Vertical Pin Header w/ Positive Lock (Fig. 4)

| Part No. | Product No. | Positions  | 1      | 25     | 50     |
|----------|-------------|------------|--------|--------|--------|
| 679623   | 350425-1    | 6 (2 x 3)  | \$1.65 | \$1.47 | \$1.31 |
| 679631   | 350212-1    | 8 (2 x 4)  | .89    | .83    | .77    |
| 679640   | 1-380991-0  | 10 (2 x 5) | 2.15   | 2.04   | 1.95   |
| 679658   | 350213-1    | 12 (2 x 6) | 2.25   | 2.16   | 2.07   |
| 679666   | 350214-1    | 16 (2 x 8) | 2.85   | 2.73   | 2.60   |

### In-Line Housing Plug, Free Hanging (Fig. 5)

| Part No. | Product No. | Positions | 1     | 10     | 100    |
|----------|-------------|-----------|-------|--------|--------|
| 527013   | 1-480349-0  | 1         | \$.20 | \$.098 | \$.078 |
| 527056   | 1-480318-0  | 2         | .21   | .116   | .102   |
| 527099   | 1-480303-0  | 3         | .22   | .204   | .172   |
| 527101   | 1-480424-0  | 4         | .22   | .207   | .193   |
| 679383   | 770827-1    | 4         | .35   | .332   | .314   |

### In-Line Housing Cap, Free Hanging (Fig. 6)

| Part No. | Product No. | Positions | 1     | 10     | 100    |
|----------|-------------|-----------|-------|--------|--------|
| 679308   | 1-480350-0  | 1         | \$.20 | \$.139 | \$.098 |
| 679316   | 1-480351-0  | 1         | .20   | .10    | .09    |
| 527187   | 1-480319-0  | 2         | *     | .133   | .10    |
| 679324   | 1-480305-0  | 3         | .21   | .207   | .19    |
| 527195   | 1-480426-0  | 4         | .26   | .239   | .217   |

### In-Line Housing Plug, Free Hanging w/ Positive Lock (Fig. 7)

| Part No. | Product No. | Positions | 1     | 10    | 100    |
|----------|-------------|-----------|-------|-------|--------|
| 527064   | 1-480720-2  | 2         | \$.47 | \$.42 | \$.317 |
| 679367   | 1-480721-0  | 3         | .73   | .71   | .70    |
| 527110   | 1-480425-0  | 4         | .45   | .402  | .329   |
| 679375   | 1-480722-0  | 4         | .90   | .85   | .81    |

### Dual Row Housing Cap w/ Positive Lock (Fig. 8)

| Part No. | Product No. | Positions  | 1     | 25    | 50    |
|----------|-------------|------------|-------|-------|-------|
| 679332   | 1-480340-0  | 6 (2 x 3)  | \$.63 | \$.62 | \$.56 |
| 679341   | 1-480345-0  | 8 (2 x 4)  | .65   | .63   | .61   |
| 679359   | 1-480339-0  | 10 (2 x 5) | .85   | .82   | .75   |

### Motor Mount, Dual Row Plug w/ Positive Lock (Fig. 9)

| Part No. | Product No. | Positions  | 1     | 25     | 50     |
|----------|-------------|------------|-------|--------|--------|
| 527144   | 1-480270-0  | 6 (2 x 3)  | \$.53 | \$.484 | \$.365 |
| 679391   | 1-480283-0  | 8 (2 x 3)  | .43   | .41    | .39    |
| 679404   | 1-480285-0  | 10 (2 x 5) | .85   | .81    | .77    |
| 679412   | 1-480287-0  | 12 (2 x 6) | 1.12  | 1.04   | 1.02   |
| 679421   | 1-480438-0  | 16 (2 x 8) | 1.55  | 1.47   | 1.39   |

### Motor Mount, Dual Row Cap w/ Positive Lock (Fig. 10)

| Part No. | Product No. | Positions  | 1     | 25    | 50    |
|----------|-------------|------------|-------|-------|-------|
| 679527   | 1-480271-0  | 6 (2 x 3)  | \$.75 | \$.69 | \$.66 |
| 679535   | 1-480284-0  | 8 (2 x 4)  | 1.16  | 1.10  | 1.06  |
| 679543   | 1-480286-0  | 10 (2 x 5) | 1.59  | 1.49  | 1.25  |
| 679551   | 1-480288-0  | 12 (2 x 6) | 1.59  | 1.46  | 1.39  |
| 679560   | 1-480439-0  | 16 (2 x 8) | 1.16  | 1.10  | 1.06  |

### Panel Mount Housing Plug w/ Positive Lock (Fig. 11)

| Part No. | Product No. | Positions  | 1     | 25     | 50     |
|----------|-------------|------------|-------|--------|--------|
| 679471   | 1-480304-0  | 3 (1 x 3)  | \$.23 | \$.225 | \$.219 |
| 679480   | 1-480273-0  | 6 (3 x 2)  | .70   | .67    | .65    |
| 679498   | 1-480274-0  | 9 (3 x 3)  | .77   | .73    | .71    |
| 679501   | 1-480275-0  | 12 (3 x 4) | .91   | .88    | .85    |
| 679519   | 1-480323-0  | 15 (3 x 5) | 1.49  | 1.41   | 1.35   |

### Panel Mount Housing Cap w/ Positive Lock (Fig. 12)

| Part No. | Product No. | Positions  | 1     | 25    | 50     |
|----------|-------------|------------|-------|-------|--------|
| 679439   | 1-480276-0  | 6 (3 x 2)  | \$.40 | \$.38 | \$.371 |
| 679447   | 1-480277-0  | 9 (3 x 3)  | .71   | .68   | .66    |
| 679455   | 1-480278-0  | 12 (3 x 4) | .78   | .77   | .76    |
| 679463   | 1-480324-0  | 15 (3 x 5) | 1.32  | 1.25  | 1.20   |

### Vertical In-Line IDC (Fig. 13)

| Part No. | Product No. | Positions | 1     | 25    | 50    |
|----------|-------------|-----------|-------|-------|-------|
| 679691   | 770156-4    | 4 (20AWG) | \$.55 | \$.53 | \$.51 |
| 679703   | 770156-3    | 4 (18AWG) | .55   | .53   | .51   |

### IDC Dust Covers (Fig. 14)

| Part No. | Product No. | Positions     | 1     | 25     | 50     |
|----------|-------------|---------------|-------|--------|--------|
| 679711   | 770232-1    | 4 (Feed-to)   | \$.20 | \$.169 | \$.161 |
| 679720   | 770233-1    | 4 (Feed-thru) | .20   | .169   | .160   |

### Crimp Terminals

- Material: A—brass pre-tin; B—brass, gold
- Prepackaged: please order in increments of 10

| Part No. | Product No. | Type   | AWG   | Material | 10     | 100    |
|----------|-------------|--------|-------|----------|--------|--------|
| 526150   | 60617-1     | Socket | 24-18 | A        | \$.093 | \$.084 |
| 526133   | 60618-1     | Pin    | 24-18 | A        | .102   | .093   |
| 679578   | 60618-5     | Pin    | 24-18 | B        | .83    | .81    |
| 526168   | 60619-1     | Socket | 20-14 | A        | .086   | .076   |
| 526125   | 60620-1     | Pin    | 20-14 | A        | .091   | .083   |

- 5000 pc. reel

| Part No. | Product No. | Type   | AWG   | Material | Price  |
|----------|-------------|--------|-------|----------|--------|
| 526141   | 61117-1     | Socket | 20-14 | A        | \$.022 |
| 526117   | 61118-1     | Pin    | 20-14 | A        | .021   |



# IDC Ribbon & Card Edge Connectors



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## AMP .100" AMPLATCH™ IDC Ribbon Connectors

### NOVO Receptacles

- 0.100" x 0.100" (2.54mm) grid center
- Preassembled housing with cover
- 0.100" grid pitch
- Insulation displacement contacts for fast, economical mass terminations
- Accepts 28-26AWG solid or stranded cables
- Contact current rating: 1A continuous
- Dielectric withstanding voltage: 1000Vrms (receptacles); 500Vrms (pin connectors)
- Housing, cover, & strain relief: 94V-0 rated thermoplastic, black
- Contacts: phosphor bronze, duplex plating
- Contact plating:

- A: 30µ" gold on localized gold plate area, 50µ" min. tin on termination end;
- B: 15µ" gold on localized gold plate area, 100µ"-200µ" tin on termination end;
- C: 15µ" gold on localized gold plate area, 100µ"-200µ" tin lead termination end, all over 50µ" min. nickel on entire area;
- D: 15µ" gold on localized gold plate area, 100µ"-200µ" bright tin lead on termination end, all over 50µ" nickel on entire contact area;
- E: 30µ" gold on localized gold plate area, 100µ"-200µ" bright tin lead on termination end, all over 50µ" nickel on entire contact area



525376



525317

### Center and Military Polarized (Continued)

| Part No. | Product No. | Pos. | Plating | 1      | 10     | 100    |
|----------|-------------|------|---------|--------|--------|--------|
| 525421   | 746288-8♣   | 34   | E       | \$2.19 | \$1.79 | \$1.65 |
| 748801   | 1658622-8♣  | 34   | A       | 3.99   | 1.93   | 1.68   |
| 525350   | 746285-8    | 34   | C       | \$2.59 | 1.65   | 1.49   |
| 901562   | 1658621-8   | 34   | B       | 1.99   | 1.69   | 1.45   |
| 525430   | 746288-9♣   | 40   | E       | 2.35   | 2.15   | 1.99   |
| 525368   | 746285-9    | 40   | C       | \$2.05 | 1.75   | 1.62   |
| 901600   | 1658621-9   | 40   | B       | 3.89   | 1.85   | 1.59   |
| 525376   | 1-746288-0  | 50   | E       | 2.85   | 2.52   | 2.19   |
| 888353   | 1-1658621-0 | 50   | B       | 4.69   | 2.29   | 1.99   |



526045



620074



620082

### Strain Relief for NOVO Receptacles

- UL94V-0 rated thermoplastic • Black

| Part No. | Product No. | Pos. | 1     | 10     | 100    |
|----------|-------------|------|-------|--------|--------|
| 526045   | 499252-5    | 10   | ..... | \$ .20 | \$ .17 |
| 526053   | 499252-9♣   | 14   | ..... | .20    | .131   |
| 526061   | 499252-8♣   | 16   | ..... | .20    | .18    |
| 527697   | 499252-2♣   | 20   | ..... | .20    | .156   |
| 527700   | 499252-3♣   | 26   | ..... | .20    | .149   |
| 526070   | 499252-6♣   | 34   | ..... | .21    | .19    |
| 526088   | 499252-4♣   | 50   | ..... | .25    | .19    |
| 527726   | 1-499252-3♣ | 64   | ..... | .32    | .275   |

### Low Profile PCB Right Angle Shrouded Headers

- 94V-0 rated glass reinforced thermoplastic, blue
- Contacts: phosphor bronze, 30µ" gold plated over 50µ" nickel plating
- 0.150" end dimension
- Double row 0.100" (2.54mm) grid center

| Part No. | Product No. | Pos. | 1     | 10     | 100    |
|----------|-------------|------|-------|--------|--------|
| 620074   | 609-1007♣   | 10   | ..... | \$2.59 | \$2.45 |
| 620111   | 609-2027♣   | 20   | ..... | 4.45   | 3.16   |

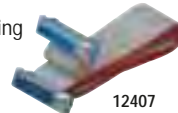
### Receptacles, Tulip Design, Center and Military Polarized w/ Strain Relief

- 0.100" (2.54mm) centers
- Housing and strain relief: 94V-0 rated glass reinforced thermoplastic, blue
- Contacts: beryllium copper, 30µ" gold over 50µ" nickel
- Tin/lead over nickel in termination area

| Part No. | Product No. | Pos. | 1     | 10     | 100    |
|----------|-------------|------|-------|--------|--------|
| 620146   | 609-2641♣   | 26   | ..... | \$4.95 | \$4.68 |
| 620082   | 609-1041♣   | 10   | ..... | 2.79   | 2.64   |

## Ribbon Cable Assemblies

- Metal connector • 300V rating
- 105°C rating
- 28 AWG flat cable
- Tin-plated contacts



12407

| Part No. | Description | 1      | 10     | 100    |
|----------|-------------|--------|--------|--------|
| 12407    | 4' DB25 M-F | \$4.49 | \$3.95 | \$3.59 |
| 208582   | 6' DB9 M-F  | 3.95   | 3.55   | 3.19   |

Our goal is to provide you with more of what you want. Let us know how we can better serve your electronics needs.

Please send your requests to  
[NewProducts@Jameco.com](mailto:NewProducts@Jameco.com).

## Cinch

## High Reliability Edge Connector

### .156" (3.96mm) Density Solder Eyelet

- Current rating: 5A
- Solder eyelet, single readout or double readout on 0.200" (5.08mm) row spacing
- Patented bifurcated bellows contacts for added contact reliability
- 0.128" (3.25mm) mounting hole
- Insulation material: Diallyl phthalate, green
- Contact material: phosphor bronze
- Contact plating: 30µ" selective gold over 50µ" copper in contact areas, 5µ" gold on tails
- Withstanding voltage: 1800VACrms
- Contact resistance: 10mΩ max.
- Insulation resistance: 5000MΩ min.



423003

| Part No. | Prod. No.  | Positions | 1     | 25     | 50     |
|----------|------------|-----------|-------|--------|--------|
| 423003   | 50-30H-30♣ | 15/30     | ..... | \$8.15 | \$6.08 |
| 423054   | 50-44H-30♣ | 22/44     | ..... | 9.59   | 8.70   |

## Cinch

## CARDCON™ Commercial Edge Connector

- DIP solder tails on 0.200" (5.08mm) row centers double readout
- Bifurcated semi-bellows contacts for added contact reliability
- 0.128" (3.25mm) mounting holes
- Insulation material: UL94V-0 rated glass filled polyester, black
- Contact material: spring, brass
- Standard contact plating: 10µ" selective gold over nickel, 50µ" nickel in contact area, tin on tails



423231

### .100" (2.54mm) Density DIP Solder

- Withstanding voltage: 650VACrms
- Current rating: 3A
- Contact resistance: 10mΩ max.
- Insulation resistance: 5000MΩ min

| Part No. | Prod. No.   | Positions | 1     | 25     | 50     |
|----------|-------------|-----------|-------|--------|--------|
| 423231   | 50-22SN-11♣ | 22/44     | ..... | \$1.75 | \$1.65 |
| 423353   | 50-50SN-11♣ | 50/100    | ..... | 3.89   | 3.66   |

### .156" (3.96mm) Density DIP Solder

- Withstanding voltage: 1800VACrms
- Current rating: 5A • Contact resistance: 6mΩ max.
- Insulation resistance: 5000MΩ min

| Part No. | Prod. No.  | Positions | 1     | 25     | 50     |
|----------|------------|-----------|-------|--------|--------|
| 423100   | 50-20SN-1♣ | 10/20     | ..... | \$1.59 | \$1.51 |
| 423214   | 50-36SN-1♣ | 18/36     | ..... | 2.89   | 2.74   |
| 423257   | 50-44SN-1♣ | 22/44     | ..... | 4.45   | 3.88   |
| 423329   | 50-50SN-1♣ | 25/50     | ..... | 2.99   | 2.79   |



## Card-Edge Connectors

- Fits all PC boards
- 0.054" to 0.070" thick



### Solder Eyelet 0.140" Spacing Between Rows

- Contact centers: 0.156" • With mounting ears

| Part No. | Position | Contacts | 1     | 10     | 100    |
|----------|----------|----------|-------|--------|--------|
| 39117    | 22/44    | Gold     | ..... | \$2.95 | \$2.65 |

### Solder Tail 0.200" Spacing Between Rows

- Contact centers: 0.100"
- Without mounting ears



40695

| Part No. | Position | Contacts    | 1     | 10     | 100    |
|----------|----------|-------------|-------|--------|--------|
| 40695    | 31/62    | Tin (PC/AT) | ..... | \$ .93 | \$ .82 |

## Cinch .085" (2.16mm) Density Miniature Ribbon Connectors

### Solder Cup, Metal Shell

- Terminates discrete wires with ultra-low resistance solder connections
- Metal shell provides grounding and shielding capability
- All plugs lock with INSTALATCH passive latch features for automatic latching
- Insulator: blue UL94V-0 rated diallyl phthalate type MDG
- Contact: copper alloy • Shell: steel
- Contact plating: select gold over 50µ" select nickel (standard); 30µ" select gold over 50µ" select nickel
- Shell plating: zinc w/ chromate coating
- Voltage rating: 500VAC/125VAC
- Withstanding voltage: 1200VACrms
- Contact rating: 5A • Contact resistance: 6mΩ
- Insulation resistance: 5000MΩ min. initial

457836: Plug, high barrier with dust cover

457844: Socket, high barrier with dust cover, low profile hood

457828: Socket, high barrier with dust cover, high profile hood

457916: Socket, vertical mount solder tail 0.110", float mounts

457924: Socket, bail latch, 0.116" hole

### Standard 90° Orientation, Commercial End Entry Cable

| Part No. | Product No. | Pos. | 1      | 25     | 50     | 100    |
|----------|-------------|------|--------|--------|--------|--------|
| 457836   | 57-10500-14 | 50   | \$6.79 | \$6.41 | \$6.06 | \$4.76 |
| 457844   | 57-20500-19 | 50   | 6.09   | 5.62   | 5.15   | 4.74   |
| 457828   | 57-20500-7  | 50   | 5.49   | 5.04   | 4.45   | 3.94   |
| 457916   | 57-20500-31 | 50   | 9.75   | 9.13   | 7.09   | 6.50   |
| 457924   | 57-40500    | 50   | 5.69   | 5.42   | 5.15   | 4.80   |

▲ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

## JAMECO ValuePro IDC Centronics Connector

- Contact material: gold plated phosphor bronze; plastic casing
- Current rating: 1 amp
- Temp. rating: -55°C to +105°C
- Use 73252 IDC crimping tool, pg 143

Blue Part No. = Limited Quantity Available

| Part No. | Description | 1      | 10     | 100    |
|----------|-------------|--------|--------|--------|
| 13848    | 36-pin male | \$1.99 | \$1.75 | \$1.68 |

## JAMECO ValuePro PCB Centronics Connectors

- Solder-type contacts
- Space between rows: 0.164" • Metal body
- Space between pins: 0.1" • PC mount

| Part No. | Description            | 1      | 10     | 100    |
|----------|------------------------|--------|--------|--------|
| 72151    | 36-contact F, rt angle | \$3.55 | \$3.19 | \$2.87 |
| 72081    | 50-contact F, rt angle | 4.95   | 4.45   | 3.95   |

## DIN and Mini DIN Plugs & Receptacles

- Solder barrels w/ strain relief
  - See pg 105 for cable
- Blue Part No. = Limited Quantity Available
- Quantity SAVE

| Part No. | Pins | Type            | 1      | 10     | 100    |
|----------|------|-----------------|--------|--------|--------|
| 142279   | 4    | Mini plug       | \$0.79 | \$0.68 | \$0.53 |
| 142261   | 6    | Mini plug       | .98    | .83    | .63    |
| 177244   | 6    | Mini receptacle | .99    | .85    | .69    |
| 111879   | 8    | Mini plug       | .99    | .89    | .74    |
| 177236   | 8    | Mini receptacle | 1.09   | .93    | .69    |
| 15879    | 5    | DIN plug        | .52    | .47    | .41    |
| 180873   | 5    | DIN receptacle  | .52    | .45    | .34    |
| 15886    | 6    | DIN plug        | .59    | .50    | .39    |
| 15894    | 8    | DIN plug        | .65    | .56    | .43    |

## DIN Female Sockets

- Metal body
- Panel mount with solder lugs

| Part No. | Cross Ref. | # of pins | 1      | 10     | 100    | 500    |
|----------|------------|-----------|--------|--------|--------|--------|
| 15844    | DINJ5      | 5         | \$1.29 | \$1.15 | \$1.05 | \$0.79 |
| 15852    | DINJ6      | 6         | 1.39   | 1.25   | 1.15   | .99    |
| 15860    | DINJ8      | 8         | 1.49   | 1.35   | 1.15   | 1.05   |

## Right Angle DIN Female Sockets

- Set back: 0.5"
- PC mount contacts


119474: Plastic/metal body  
 29400: Plastic body

| Part No. | Cross<br>Ref. No. | # of pins | 1      | 10     | 100    | 500    |
|----------|-------------------|-----------|--------|--------|--------|--------|
| 119474   | MDR6S             | 6 (mini)  | \$1.04 | \$0.91 | \$0.70 | \$0.53 |
| 29400    | RD5               | 5         | .59    | .53    | .40    | .36    |

### Other Manufacturers — Great Deals

- Set back: 0.5"
- PC mount contacts
- Plastic/metal body

Blue Part No. = Limited Quantity Available

|          |          |           | 207722  |        |        |        |
|----------|----------|-----------|--|--------|--------|--------|
|          | Cross    |           |  |        |        |        |
| Part No. | Ref. No. | # of pins | 1  | 10     | 100    | 500    |
| 207722   | MDS8100  | 8 (mini)  | \$ .99   | \$ .89 | \$ .69 | \$ .55 |

## Cinch Circular Mini DIN Connectors

### Single-Ended Cable Assembly

- 6 or 8-pin male
- Molded-in strain relief
- Shield: steel with nickel
- Contact material: phosphor bronze
- Jacket over 28 AWG stranded wire

### Plugs

- Plug components for cable termination

These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

See Complete Cinch Mini DIN Offering at [www.Jameco.com/Prod/CinchMiniDIN](http://www.Jameco.com/Prod/CinchMiniDIN)

## USB-A & B Connectors and Pins

### 1.0 and 2.0

- 161024 (USB-A)
- 174060 (USB-B)
- 230965

174060: USB-A & B (2.0) Male Connector  
 • 3-part housing: tin plate over brass and glass fiber  
 • 4-pins (P/N 159724, see web) required per USB connector

Quantity SAVE

161024/230958: USB-A & B (1.0 & 2.0) Female Connectors  
 • PC mount right angle with board locks

230965: Male Crimp Pin

- Pin for P/N 174060 (4 required)
- Contact: gold
- Use P/N 159266 for crimping tool, pg 292

\*Prepackaged: please order in increments of 10

| Part No. | Description           | 1      | 10     | 100    | 1000   |
|----------|-----------------------|--------|--------|--------|--------|
| 161024   | USB-A 1.0 conn. (F)   | \$0.79 | \$0.69 | \$0.62 | \$0.56 |
| 174060   | USB-B 2.0 conn. (M)   | .69    | .64    | .60    | .45    |
| 230958   | USB-B 2.0 conn. (F)   | .99    | .85    | .55    | .42    |
| 230965   | Crimp pin (M) for 2.0 | ...    | .125   | .09    | .065   |

## Keyboard Adapters

- 159089
- 159097
- 189771
- 316832

159089/189771: AT keyboard adapter  
 • Connects PS/2 keyboard to AT  
 • 6-pin female mini DIN to 5-pin male DIN

159097: PS/2 keyboard adapter  
 • Connects AT type keyboards to the PS/2  
 • 5-pin female DIN to 6-pin male mini DIN (PS/2)

316832: USB to PS/2 keyboard adapter  
 • USB-A female to PS/2 male

| Part No. | Length | Housing | 1      | 10     | 100    |
|----------|--------|---------|--------|--------|--------|
| 159089   | 1.6"   | Metal   | \$2.95 | \$2.65 | \$1.98 |
| 159097   | 1.4"   | Metal   | 2.95   | 2.51   | 1.88   |
| 189771   | 1.7"   | Plastic | 2.95   | 2.65   | 1.98   |
| 316832   | 2.0"   | Plastic | 1.79   | 1.59   | 1.39   |

### Other Manufacturers — Great Deals

## PS/2 Keyboard Adapter

- Connects AT type keyboards to the PS/2
- 5-pin female DIN to 6-pin male mini DIN (PS/2)

| Part No. | Length | Housing       | 1      | 10     | 100    |
|----------|--------|---------------|--------|--------|--------|
| 157930   | 1.7"   | Plastic/metal | \$2.65 | \$2.25 | \$1.69 |

## PS/2 – USB Adapter

This adapter allows you to use your PS/2 compatible mouse and keyboard as USB compatible devices.

- USB - A Male to two PS/2 female connectors
- Color coded PS/2 connectors for keyboard & mouse

| Part No. | Length | Housing     | 1       | 10      | 25      |
|----------|--------|-------------|---------|---------|---------|
| 645351   | 13"    | USB adapter | \$12.35 | \$11.75 | \$11.15 |

## 30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 322.



## Full Handshaking Null Modem Adapters

Self-contained null-modem (cross-over) adapters. Change any standard straight cable into a null cable quickly and easily.

Internal pin configuration: 26243

17224: 1-1, 2-3, 3-2, 4-5, 5-4, 6-20, 20-6, 7-7, 8-20  
26243: 1-1, 2-3, 3-2, 4-8, 8-4, 5-8, 8-5, 6-20, 20-6, 7-7

| Part No. | Description      | 1      | 10     | 100    |
|----------|------------------|--------|--------|--------|
| 26243    | DB25 M to DB25 F | \$3.95 | \$3.65 | \$3.49 |
| 17224    | DB25 F to DB25 F | 3.49   | 2.95   | 2.49   |

## Slim-Line D-Sub Gender Changers

For Confined Applications!

These revolutionary slim-line gender changers are only 0.69" wide, eliminating the space problems caused by standard gender changers. When plugged into your existing cable, they add only 0.44" to the cable. All-metal cases.

- Captive locking screw (male)
- Captive locking nut (female)
- Grounding tangs (male)
- Tin plated shells

Blue Part No. = Limited Quantity Available

| Part No. | Description                | 1      | 10     | 100    |
|----------|----------------------------|--------|--------|--------|
| 18497    | 9-pin male to male         | \$4.95 | \$4.49 | \$3.99 |
| 18489    | 9-pin female to female     | 4.95   | 4.49   | 3.99   |
| 56071    | 15-pin male to male        | 3.95   | 3.49   | 2.95   |
| 56063    | 15-pin female to female    | 3.95   | 3.56   | 3.19   |
| 119320   | 15-pin female to female HD | 4.75   | 4.28   | 3.84   |
| 119301   | 15-pin male to male HD     | 5.25   | 4.76   | 4.19   |
| 326537   | 15-pin M-F (pass through)  | 2.25   | 1.91   | 1.43   |
| 18446    | 25-pin male to male        | 4.95   | 4.49   | 3.99   |
| 18420    | 25-pin female to female    | 4.95   | 4.49   | 3.99   |
| 170085   | 25-pin M-F (pass through)  | 2.95   | 2.65   | 2.35   |

## Fiber Optic Accessories

### MTP/MPO

Provide reliable high performance interconnects of up to 24 fibers in a small footprint.

### LC Loopback

Provides a stable and convenient means for testing optical SFP (Small Form-factor Pluggable) and SFF (Small Form Factor) devices.

### SMC

Provide reliable high performance interconnects of up to 12 fibers in a low profile footprint.

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See Our Complete Molex Fiber Optic Offering at [www.Jameco.com/Prod/MolexFiberOptic](http://www.Jameco.com/Prod/MolexFiberOptic)

## Computer Card Brackets

Quantity SAVE

Fig.: 1 2 3 4 5

- For securing cards into bus slots
- Fits standard PC/XT/AT cases • Length: 4.75"
- See pg 120 for DB connectors

| Part No. | Description        | Fig. | 1      | 10     | 100    |
|----------|--------------------|------|--------|--------|--------|
| 11754    | Blank back panel   | 1    | \$1.79 | \$1.59 | \$1.45 |
| 101718   | For DB9 connector  | 2    | 1.79   | 1.59   | 1.45   |
| 101733   | For DB25 connector | 3    | 1.79   | 1.52   | 1.14   |
| 101741   | For DC37 connector | 4    | 1.79   | 1.59   | 1.45   |
| 101831   | For DB9/DB25 conn. | 5    | 1.79   | 1.59   | 1.45   |

## Panel Bracket Cable Assemblies

- Standard computer back panel brackets
- Length: 12"
- Ribbon cable with header connector

355688: 1 serial port  
149622: 1 parallel port  
179995: 1 parallel & 2 serial ports

Quantity SAVE

| Part No. | Description   | 1      | 10     | 25     |
|----------|---|--------|--------|--------|
| 355688   | DB9 to 10-pin header  | \$2.25 | \$2.00 | \$1.85 |
| 149622   | DB25 to 26-pin header   | 2.79   | 2.51   | 2.26   |
| 179995   | DB9M to 10-pin header<br>DB25M to 10-pin header<br>DB25F to 26-pin header | 1.39   | 1.16   | 84     |

## Standard D-Sub Gender Changers

Quantity SAVE

16643 22058

- Standard 9 and 25-pin D-sub male and female gender changers for interfacing two cables or connectors of the same gender

| Part No. | Description         | 1      | 10     | 100    |
|----------|---------------------|--------|--------|--------|
| 16635    | D-sub 9-pin male    | \$1.95 | \$1.75 | \$1.49 |
| 16643    | D-sub 9-pin female  | 1.95   | 1.75   | 1.49   |
| 22058    | D-sub 25-pin male   | 1.95   | 1.49   | 1.05   |
| 22074    | D-sub 25-pin female | 1.99   | 1.79   | 1.65   |

## D-Sub 9-Pin to 25-Pin Serial Adapters

Quantity SAVE

10321: For PC/XT systems with DB25 serial ports.  
139985: gold-plated contacts, extra long thumbscrews

| Part No. | Description     | 1      | 10     | 100    |
|----------|-----------------|--------|--------|--------|
| 10321    | DB9 M to DB25 F | \$4.49 | \$3.79 | \$3.19 |
| 189632   | DB9 M to DB25 M | 3.49   | 3.15   | 2.85   |
| 139985   | DB9 F to DB25 F | 3.95   | 3.36   | 2.52   |

### Other Manufacturers — Great Deals

## D-Sub 9-Pin to 25-Pin Serial Adapters

Quantity SAVE

10305: For use in AT or other computer systems that have 9-pin D-sub serial ports.  
163740: For PC/XT systems with DB25 serial ports.

| Part No. | Description                                   | 1      | 10     | 100    |
|----------|---|--------|--------|--------|
| 10305    | DB9 F to DB25 M                               | \$3.15 | \$2.69 | \$1.99 |
| 163740   | DB9 M to DB25 F, thumbscrews on DB9 side only | 2.55   | 2.19   | 1.65   |
| 664296   | DB9 M to DB25 M, thumbscrews on both sides    | 2.49   | 2.25   | 1.85   |

## 10' Fiber Optic Cable

- 1000µm core jacketed plastic fiber optic cable (10')

| Part No. | Product No. | 1      | 10     |
|----------|-------------|--------|--------|
| 171272   | IF-C-E1000  | \$6.95 | \$6.25 |

## Fiber Optic Connectors & Adapters

SC Duplex ESCON FC/APC

### SC

The versatile Molex SC lightwave connector has been designed to NTT-SC standards & is completely compatible with other SC hardware.

### SC Duplex

Designed to maintain fiber optic cabling polarity in the telecommunication and data communication networks.

### SC/APC

NTT compliant connector, combines connector design with a precise Angled Physical Contact (APC) ferrule.

### ESCON

High speed communication interconnect between mainframes and storage devices, peripheral control units and other networks.

### FC/APC

Combines an NTT-FC connector design with a precise, pre-angled, pre-radiused & pre-polished ferrule.

### ST

Specially designed for distribution applications & fully compatible with existing ST type hardware.

### STII

Versatile coupling nut design, which allows the STII connector to provide either standard ST or non-optical disconnect functionality.

### Bezel Adapter Accessories

Provides many advantages when deploying various fiber optic adapters on equipment front and/or back panels.

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See Our Complete Molex Fiber Optic Offering at [www.Jameco.com/Prod/MolexFiberOptic](http://www.Jameco.com/Prod/MolexFiberOptic)

Commercial Customers

Open an account with us to consolidate your monthly billing and to save time.



**Fiber Optic Backplanes****HBMT™ MT**

Utilizing a standard MT ferrule as the optical interface, the HBMT provides up to 96 fiber interconnects.

**BMT™ MTP**

High density solution based on the NTT MT ferrule and MTP push-pull ribbon fiber connector.

**BLC™ LC**

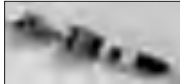
Designed to provide a smooth transition from the active devices to the LC based fiber optic network.

**BSC™/BSCII™ SC**

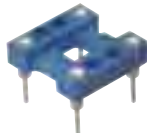
Designed to provide a smooth transition from the active devices to the SC based fiber optic network.

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**BMT™ MTP****BSC/BSCII SC****Oscillator Socket**

- Body material: blue UL 94V-0 glass filled polyester thermoplastic
- Brass alloy pin, 1/2 hard with 200µ" (5.08µm) 93/7 tin/lead plating
- Operating temp.: 221°F (105°C)
- Contact current: 3A
- Center pin spacing: .300" (7.62mm)
- Suggested PCB hole size: .030" (.76mm)



| Part No. | Prod. No. | Pos. | L" x W"   | 1     | 10    | 100   |
|----------|-----------|------|-----------|-------|-------|-------|
| 291283   | 1108800   | 8    | .40 x .40 | \$5.6 | \$4.7 | \$3.8 |

**Universal SOIC to .600" DIP Adapter****Series 647**

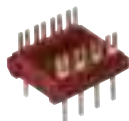
- 44-pin adapter for mounting Aries Series 547 Universal SOIC ZIF test socket to 0.600" DIP PCB layout
- Black FR-4 body material, 0.094" thick with copper traces
- Brass alloy female pin body with 200µ" (5.08µm) tin/lead plating • Contact current: 3A
- Beryllium copper 4-fingered collet contact with 10µ" (0.25µm) gold over nickel plating
- Phosphor bronze alloy male pin with 200µ" (5.08µm) tin/lead plating
- Suggested PCB hole size: 0.028" diameter



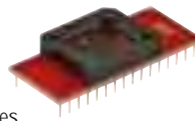
| Part No. | Product No. | Price   |
|----------|-------------|---------|
| 295283   | 44-647-10   | \$60.95 |

**DIP Headers****Series 600 Headers w/ Coined Contacts**

- Standard cover/body material is red UL 94-HB glass filled nylon
- High temperature cover/body material is black UL 94V-0 4/6 nylon
- Contact plating: 100µ" min., tin • Contact rating: 2A
- Operating temp.: 221°F (105°C) max.
- Fork contacts: accept up to .025" (.64mm) dia. leads

**291120****PLCC-to-DIP Adapter with Socket****Series 653000**

- Converts PLCC packaged ICs to DIP footprints
- Adapter body: FR-4; .062" (1.58mm) thick with 1 oz. minimum copper traces
- Brass alloy solder tail pins w/ 200µ" (5.08µm) 93/7 tin/lead • Current rating: 1A
- Center pins: .600" (15.24mm) • Width: .705"
- Suggested PCB hole size: .028" (.71mm) Dia.



| Part No. | Product No.  | Pos. | Length | 1       | 10      | 100     |
|----------|--------------|------|--------|---------|---------|---------|
| 295196   | 32-653000-10 | 32   | 1.6"   | \$35.65 | \$32.65 | \$27.05 |

**Row-to-Row DIP Adapter Socket**

This socket allows the use of .300" (7.62mm) center devices when the PCB is drilled on .600" (15.24mm) centers and vice versa.



- Brass alloy pin body w/ 200µ" (1.27µm) 93/7 tin/lead plating
- Socket body: UL 94-HB glass-filled nylon
- Beryllium copper alloy 4-fingered collet contact w/ 30µ" (0.76µm) gold plating • Contact current: 3A
- Suggested PCB hole size: .035" (.89mm) dia.

**Series 1107254 - .600" to .300" adapter**

| Part No. | Product No. | Pins | 1       | 10     | 100    |
|----------|-------------|------|---------|--------|--------|
| 296762   | 1107254-28  | 28   | \$10.89 | \$8.29 | \$7.55 |

**DIP/SOIC to TO Adapters**

8-pin DIP socket or 8-pin SOIC footprint on top and a circular 8-pin TO can male footprint at the bottom. ICs now available only in 8-pin DIP or SOIC can be readily mounted on boards having TO thru-hole footprints without having to redesign the board.

**323272**

- Board thickness: .062"
- Male pin: brass alloy with 200µ" tin plating
- Suggested PCB hole size: .028" Dia.

**323272: DIP to TO adapter**

- Socket body: black UL 94V-0
- Female pin: brass alloy with 10µ" gold plating
- Female pin contact: beryllium copper with 10µ" gold plating • Contact current: 3A
- Accepts leads .015" to .025" Dia.; .100" to .125" long
- Dimensions: 0.4" L x 0.4" W x 0.23" H

**323264****323264: SOIC to TO adapter**

- 1 oz. copper traces on both sides • Size: 0.375" Dia.

| Part No. | Product No. | 1      | 10     | 100    |
|----------|-------------|--------|--------|--------|
| 323272   | 1109522     | \$8.35 | \$7.89 | \$7.49 |
| 323264   | 1109814     | 11.99  | 10.14  | 9.86   |

**SOIC/SOJ to DIP Adapters**

- Board material: 0.062" thick FR-4 with 1 oz. copper traces on both sides
- Brass alloy pins w/ 200µ" (5.08µm) min. tin plating
- Operating temperature: 221°F (105°C) max.
- Suggested PCB hole size: 0.028" (0.71mm) Dia.

**Lower \$\$\$****Series 35000X**

- Center pins: 0.300" (7.62mm)
- SOIC package

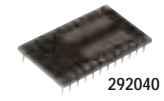


Blue Part No. = Limited Quantity Available

| Part No. | Product No.  | Pins | L" x W"    | 1      | 10     | 100    |
|----------|--------------|------|------------|--------|--------|--------|
| 291208   | 08-350000-10 | 8    | .400 x .46 | \$6.59 | \$5.59 | \$4.50 |
| 291291   | 14-350000-10 | 14   | .700 x .45 | 5.79   | 4.91   | 4.63   |
| 291515   | 16-350000-10 | 16   | .800 x .45 | 6.55   | 5.59   | 4.65   |
| 291910   | 20-350000-10 | 20   | 1.0 x .45  | 5.95   | 5.29   | 4.63   |
| 291980   | 24-350000-10 | 24   | 1.2 x .45  | 4.45   | 4.33   | 4.23   |
| 292075   | 28-350000-10 | 28   | 1.4 x .40  | 6.05   | 5.23   | 5.00   |

**Series 65000X**

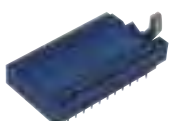
- Center pins: 0.600" (15.24mm)
- SOIC package



| Part No. | Product No.  | Pins | L" x W"   | 1      | 10     | 100    |
|----------|--------------|------|-----------|--------|--------|--------|
| 292040   | 24-650000-10 | 24   | 1.2 x .70 | \$9.65 | \$8.16 | \$7.09 |
| 295145   | 28-650000-10 | 28   | 1.4 x .70 | 10.35  | 10.25  | 10.15  |

**Series 526 Low Profile ZIF Sockets**

- Body: UL 94V-0 glass-filled polyester thermoplastic
- Beryllium copper alloy spring tempered contacts w/ 200µ" (5.08µm) tin plating
- Contact current: 2A
- Contact resistance: 10mΩ max.
- Breakdown voltage: 1000VAC min.
- Center pins: .600" (15.24mm) • Zinc alloy cam
- Operating temp.: -67°F to 221°F (-55°C to 105°C)
- Suggested PCB hole size: .035" (0.89mm) Dia.

**296789**

Blue Part No. = Limited Quantity Available

| Part No. | Product No. | Pins | L" x W"    | 1      | 10     | 100    |
|----------|-------------|------|------------|--------|--------|--------|
| 296789   | 24-526-10   | 24   | 1.45 x .75 | \$5.65 | \$5.19 | \$4.39 |
| 102745   | 28-526-10   | 28   | 1.64 x .75 | 5.49   | 4.99   | 4.49   |
| 102752   | 40-526-10   | 40   | 2.24 x .75 | 7.35   | 6.65   | 5.89   |

**High Temp. Universal ZIF Test Sockets****Series X55X**

- Accepts devices on .300" to .600" (7.62mm to 15.24mm) centers
- -10: 100µ" tin over 50µ" nickel;
- -11: 10µ" gold over 50µ" nickel
- Operating temperature:
  - 10: 221°F (105°C) – tin plating
  - 11: 302°F (150°C) – gold plating
- Socket body: UL 94V-0 glass-filled PPS
- Beryllium copper contact plating
- Stainless steel handle • Contact current: 1A
- Insulation resistance: 1000MΩ
- Dielectric withstanding voltage: 1000VAC
- Center pins: 0.600" (15.24mm)

**292059**

Blue Part No. = Limited Quantity Available

| Part No. | Product No. | Pins | L" x W"   | 1       | 10     | 100    |
|----------|-------------|------|-----------|---------|--------|--------|
| 292059   | 26-6554-11  | 26   | 1.3 x 0.9 | \$10.95 | \$9.59 | \$9.55 |
| 295162   | 28-6554-11  | 28   | 1.4 x 0.9 | 11.85   | 10.39  | 10.25  |
| 295208   | 32-6554-11  | 32   | 1.6 x 0.9 | 13.15   | 11.77  | 11.49  |
| 295233   | 40-6554-11  | 40   | 2.0 x 0.9 | 15.69   | 13.79  | 13.69  |
| 103991   | 24-6554-10  | 24   | 1.8 x 0.9 | 7.49    | 6.79   | 5.99   |
| 104003   | 28-6554-10  | 28   | 2.0 x 0.9 | 8.45    | 7.39   | 7.15   |
| 104012   | 32-6554-10  | 32   | 2.1 x 0.9 | 9.95    | 8.49   | 8.29   |
| 104030   | 40-6554-10  | 40   | 2.5 x 0.9 | 11.25   | 9.80   | 9.45   |

RoHS compliant product

This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.

Color Code Legend

New Sale Lower\$ QtySave

Machine Tooled Solder Tail  
Low-Profile Sockets

- Contact plating: gold
- Tin-plated leads
- Contact current: 3A
- Multiple contact elements
- Material: beryllium copper or phosphor bronze
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Sleeve material: brass
- Thru-hole lead length: .177" (A) • Body ht.: .117" (B)

Blue Part No. = Limited Quantity Available

| Part No. | Cross Ref. No. | Pins | Width (in.) | 1       | 10      | 100     | 1000  |
|----------|----------------|------|-------------|---------|---------|---------|-------|
| 167003   | 6MLPT          | 6    | 0.3         | \$.29   | \$.26   | \$.18   | \$.16 |
| 51626    | 8MLP           | 8    | 0.3         | \$.25   | \$.22   | \$.19   | \$.17 |
| 37197    | 14MLP          | 14   | 0.3         | \$.42   | \$.38   | \$.33   | \$.30 |
| 37402    | 16MLP          | 16   | 0.3         | \$.47   | \$.43   | \$.37   | \$.34 |
| 65585    | 18MLP          | 18   | 0.3         | \$.55   | \$.49   | \$.43   | \$.39 |
| 38623    | 20MLP          | 20   | 0.3         | \$.59   | \$.55   | \$.45   | \$.39 |
| 39387    | 24MLP          | 24   | 0.3         | \$.65   | \$.59   | \$.47   | \$.35 |
| 39351    | 24MLP          | 24   | 0.6         | \$.65   | \$.59   | \$.53   | \$.44 |
| 114412   | 28SMLP         | 28   | 0.3         | \$.85   | \$.75   | \$.65   | \$.55 |
| 40328    | 28MLP          | 28   | 0.6         | \$.83   | \$.75   | \$.65   | \$.59 |
| 105380   | 32MLP          | 32   | 0.6         | \$.95   | \$.85   | \$.75   | \$.65 |
| 41136    | 40MLP          | 40   | 0.6         | \$.1.19 | \$.1.05 | \$.79   | \$.69 |
| 42060    | 48MLP          | 48   | 0.6         | \$.1.29 | \$.1.16 | \$.1.04 | \$.89 |

## Other Manufacturers — Great Deals

|        |           |    |     |         |        |        |        |
|--------|-----------|----|-----|---------|--------|--------|--------|
| 662565 | 6MLP      | 6  | 0.3 | \$.25   | \$.22  | \$.16  | \$.14  |
| 662573 | 8MLP      | 8  | 0.3 | \$.22   | \$.20  | \$.17  | \$.15  |
| 662611 | 16MLP     | 16 | 0.3 | \$.42   | \$.38  | \$.33  | \$.30  |
| 192209 | 224SMLP   | 22 | 0.4 | \$.53   | \$.477 | \$.382 | \$.287 |
| 652359 | 24MLP-GLD | 24 | 0.6 | \$.59   | \$.49  | \$.39  | \$.25  |
| 184680 | 284SMLP   | 28 | 0.4 | \$.80   | \$.72  | \$.58  | \$.43  |
| 662629 | 40MLP     | 40 | 0.6 | \$.1.09 | \$.95  | \$.69  | \$.62  |

## Machine Contact Single-In-Line Female Sockets

- Machine tooled
- Single row
- Solder tail and wire wrap

|       |        |
|-------|--------|
| 78642 | 104054 |
|-------|--------|

| Part No. | Description | 1       | 10      | 100     | 500     |
|----------|-------------|---------|---------|---------|---------|
| 102201   | 10-pin      | \$.25   | \$.22   | \$.20   | \$.18   |
| 78642    | 30-pin      | \$.89   | \$.80   | \$.68   | \$.61   |
| 175920   | 36-pin      | \$.1.19 | \$.1.09 | \$.97   | \$.87   |
| 101283   | 20-pin WW2  | \$.1.49 | \$.1.35 | \$.1.09 | \$.80   |
| 104054   | 30-pin WW3  | \$.1.95 | \$.1.75 | \$.1.49 | \$.1.35 |

† Lead length: .435" (2) \* Lead length: .575" (3)

## Machine Contact Dual-In-Line Female Sockets

- 0.100" centers
- Solder tail contact: .114" L
- Contact clip: gold
- Pin sleeve: tin

Blue Part No. = Limited Quantity Available

| Part No. | Cross Ref. No. | Pins | 1       | 10      | 100    |
|----------|----------------|------|---------|---------|--------|
| 212855   | SA101000       | 10   | \$.29   | \$.23   | \$.213 |
| 212871   | SA141000       | 14   | \$.35   | \$.33   | \$.30  |
| 212880   | SA161000       | 16   | \$.40   | \$.36   | \$.27  |
| 184612   | SA201000       | 20   | \$.50   | \$.46   | \$.42  |
| 212927   | SA321000       | 32   | \$.80   | \$.74   | \$.55  |
| 212935   | SA481000       | 48   | \$.1.20 | \$.1.02 | \$.77  |

Dual Wipe Solder Tail  
Low-Profile Sockets

- Contact current: 1A
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Thru-hole lead length: .140" (A) • Body ht.: .188" (B)
- Minimum order 10 pieces

| Part No. | Ref. No. | Pins | Width (in.) | 10     | 100    | 1000   |
|----------|----------|------|-------------|--------|--------|--------|
| 112193   | 6LPD     | 6    | 0.3         | \$.09  | \$.06  | \$.05  |
| 112206   | 8LPD     | 8    | 0.3         | \$.09  | \$.08  | \$.07  |
| 112214   | 14LPD    | 14   | 0.3         | \$.10  | \$.075 | \$.05  |
| 112222   | 16LPD    | 16   | 0.3         | \$.13  | \$.115 | \$.095 |
| 112231   | 18LPD    | 18   | 0.3         | \$.16  | \$.14  | \$.12  |
| 112281   | 24SLPD   | 24   | 0.3         | \$.13  | \$.111 | \$.083 |
| 112265   | 24LPD    | 24   | 0.6         | \$.158 | \$.129 | \$.089 |
| 112299   | 28SLPD   | 28   | 0.3         | \$.21  | \$.19  | \$.17  |
| 112301   | 32LPD    | 32   | 0.6         | \$.26  | \$.23  | \$.173 |
| 112310   | 40LPD    | 40   | 0.6         | \$.26  | \$.23  | \$.19  |

## Other Manufacturers — Great Deals

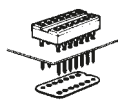
## Single &amp; Dual Wipe Low-Profile Sockets

| Part No. | Ref. No. | Pins | Width (in.) | 10     | 100    | 1000   |
|----------|----------|------|-------------|--------|--------|--------|
| 51571    | 8LP      | 8    | 0.3         | \$.063 | \$.054 | \$.045 |
| 689928   | ED08DT   | 8†   | 0.3         | \$.075 | \$.065 | \$.055 |
| 37162    | 14LP     | 14   | 0.3         | \$.081 | \$.063 | \$.054 |
| 689936   | ED14DT   | 14†  | 0.3         | \$.08  | \$.065 | \$.054 |
| 37372    | 16LP     | 16   | 0.3         | \$.09  | \$.081 | \$.054 |
| 689944   | ED16DT   | 16†  | 0.3         | \$.11  | \$.09  | \$.07  |
| 38113    | 18LP     | 18   | 0.3         | \$.099 | \$.084 | \$.063 |
| 689952   | ED18DT   | 18†  | 0.3         | \$.14  | \$.12  | \$.10  |
| 38608    | 20LP     | 20   | 0.3         | \$.108 | \$.09  | \$.063 |
| 112248   | 20LPD    | 20†  | 0.3         | \$.153 | \$.13  | \$.098 |
| 39132    | 22LP     | 22   | 0.4         | \$.108 | \$.10  | \$.095 |
| 39378    | 24SLP    | 24   | 0.3         | \$.161 | \$.137 | \$.103 |
| 39335    | 24LP     | 24   | 0.6         | \$.128 | \$.081 | \$.061 |
| 112266   | 24LPD    | 24†  | 0.6         | \$.158 | \$.136 | \$.122 |
| 40301    | 28LP     | 28   | 0.6         | \$.171 | \$.117 | \$.081 |
| 112272   | 28LPD    | 28†  | 0.6         | \$.19  | \$.16  | \$.14  |
| 689961   | ED28DT   | 28†  | 0.3         | \$.18  | \$.15  | \$.11  |
| 689979   | ED32DT   | 32†  | 0.6         | \$.18  | \$.15  | \$.11  |
| 41111    | 40LP     | 40   | 0.6         | \$.171 | \$.153 | \$.108 |
| 689987   | ED40DT   | 40†  | 0.6         | \$.22  | \$.19  | \$.13  |

† Dual Wipe • Blue Part No. = Limited Quantity Available

## Wire Wrap Socket I.D. Markers

- Quick identification of pin numbers
- Slips onto socket before wrapping
- Plastic
- Can easily write location, part number or function



37145

| Part No. | Prod. No. | Pins | Width (in.) | 1     | 10    | 100    | 500    |
|----------|-----------|------|-------------|-------|-------|--------|--------|
| 51561    | 8ID       | 8    | 0.3         | \$.44 | \$.35 | \$.30  | \$.28  |
| 37145    | 14ID      | 14   | 0.3         | \$.35 | \$.31 | \$.28  | \$.24  |
| 37356    | 16ID      | 16   | 0.3         | \$.29 | \$.26 | \$.25  | \$.23  |
| 38105    | 18ID      | 18   | 0.3         | \$.49 | \$.45 | \$.39  | \$.35  |
| 38586    | 20ID      | 20   | 0.3         | \$.55 | \$.49 | \$.45  | \$.41  |
| 39327    | 24ID      | 24   | 0.6         | \$.36 | \$.34 | \$.32  | \$.31  |
| 40299    | 28ID      | 28   | 0.6         | \$.65 | \$.59 | \$.472 | \$.354 |
| 41101    | 40ID      | 40   | 0.6         | \$.89 | \$.79 | \$.69  | \$.65  |

## Jameco ValuePro

- Locking tabs
- Tinned contacts
- Keyed mounting posts
- Memory module sockets

## SIMM Socket

| Part No. | Description            | 1     | 10    | 100   | 500    |
|----------|------------------------|-------|-------|-------|--------|
| 100302   | Single x 30-pin, vert. | \$.59 | \$.53 | \$.42 | \$.408 |

## Level 1, 2 &amp; 3 Wire Wrap Sockets

- Contact plating/leads: gold (WW) or tin (TWW); dual wipe
- Material: beryllium copper or phosphor bronze
- Contact current: 1A
- Contact resistance: <5mΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Thru-hole lead length: .315" (L1); .438" (L2); .638" (L3)
- Sleeve material: brass
- Body height: .300" (A)

## Gold (WW)

| Part No. | Prod. No. | Pins | W (in.) | 1      | 10     | 100    | 500    |
|----------|-----------|------|---------|--------|--------|--------|--------|
| 37234    | 14WW2     | 14   | 0.3     | \$1.49 | \$1.35 | \$1.19 | \$1.09 |
| 37480    | 16WW2     | 16   | 0.3     | 1.75   | 1.59   | 1.43   | 1.29   |
| 38675    | 20WW2     | 20   | 0.3     | 2.25   | 1.99   | 1.82   | 1.65   |
| 40353    | 28WW2     | 28   | 0.6     | 5.75   | 5.15   | 4.75   | 4.15   |

## Tin (TWW)

| Part No. | Prod. No. | Pins | W (in.) | 1      | 10     | 100   | 500   |
|----------|-----------|------|---------|--------|--------|-------|-------|
| 37218    | 14TWW2    | 14   | 0.3     | \$1.15 | \$1.03 | \$.93 | \$.84 |
| 37437    | 16TWW2    | 16   | 0.3     | .99    | .89    | .80   | .75   |
| 87637    | 18TWW2    | 18   | 0.3     | 1.19   | 1.13   | 1.07  | .99   |
| 75380    | 20TWW2    | 20   | 0.3     | 1.69   | 1.52   | 1.35  | 1.23  |
| 75417    | 24TWW2    | 24   | 0.6     | 1.49   | 1.35   | 1.09  | .79   |
| 41180    | 40TWW2    | 40   | 0.6     | 2.49   | 2.15   | 1.79  | 1.62  |

## Other Manufacturers — Great Deals

|        |        |    |     |       |       |       |       |
|--------|--------|----|-----|-------|-------|-------|-------|
| 196841 | 14TWW3 | 14 | 0.3 | \$.82 | \$.74 | \$.59 | \$.44 |
|--------|--------|----|-----|-------|-------|-------|-------|

Level 3 Machine Tooled  
Wire Wrap Sockets

- Contact plating: gold
- Tin-plated leads
- Contact resistance: <5mΩ
- Dielectric withstanding voltage: 300Vrms
- Material: beryllium copper or phosphor bronze
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Insulation resistance: greater than 1000MΩ
- Sleeve material: brass
- Body height: .115" (A)
- Thru-hole lead length: .365" (L2); .515" (L3)

| Part No. | Cross Ref. No. | Pins | Width (in.) | 1     | 10    | 100   | 500   |
|----------|----------------|------|-------------|-------|-------|-------|-------|
| 94474    | 8MSWW3         | 8    | 0.3         | \$.53 | \$.46 | \$.38 | \$.34 |
| 62051    | 14MSWW3        | 14   | 0.3         | \$.93 | \$.80 | \$.67 | \$.60 |
| 37411    | 16MSWW3        | 16   | 0.3         | 1.09  | .93   | .78   | .69   |
| 94482    | 18MSWW3        | 18   | 0.3         | 1.09  | .93   | .78   | .74   |
| 38632    | 20MSWW3        | 20   | 0.3         | 1.33  | 1.14  | .95   | .86   |
| 185324   | 22MSWW3        | 22   | 0.3         | 1.39  | 1.25  | 1.06  | .97   |
| 105372   | 24MSWW3        | 24   | 0.3         | 1.55  | 1.32  | 1.11  | .99   |
| 94491    | 24MSWW3        | 24   | 0.6         | 1.55  | 1.31  | 1.11  | 1.03  |
| 200715   | 28MSWW3        | 28   | 0.3         | 1.69  | 1.43  | 1.30  | 1.15  |
| 40336    | 28MSWW3        | 28   | 0.6         | 1.69  | 1.43  | 1.36  | 1.23  |
| 117057   | 32MSWW3        | 32   | 0.6         | 2.19  | 1.97  | 1.58  | 1.28  |
| 94503    | 40MSWW3        | 40   | 0.6         | 2.65  | 2.28  | 1.90  | 1.71  |
| 200723   | 48MSWW3        | 48   | 0.6         | 2.65  | 2.38  | 2.14  | 1.93  |

## Other Manufacturers — Great Deals

|        |          |    |     |       |        |        |        |
|--------|----------|----|-----|-------|--------|--------|--------|
| 192831 | 224MSWW3 | 22 | 0.4 | \$.35 | \$.314 | \$.283 | \$.255 |
| 313656 | 24MSWW3  | 24 | 0.6 | 1.19  | 1.05   | .88    | .79    |



## AMP

### DIP Sockets

#### Dual Leaf Straight Solder Tail

- Accepts .008" to .014" thick IC leads
- Housing: glass filled thermoplastic, 94V-0 rated, black
- Contact: phosphor bronze with 15µ" gold plate

| Part No. | Product No. | Pos. | Width |       | 1     | 10    | 100   |
|----------|-------------|------|-------|-------|-------|-------|-------|
| 524576   | 2-640357-4  | 14   | 0.3   | ..... | \$.75 | \$.73 | \$.69 |
| 524584   | 2-640358-4  | 16   | 0.3   | ..... | .59   | .534  | .485  |

#### Economy Ladder Style

- Housing: glass filled thermoplastic, black
- Contacts: phosphor bronze tin plating
- Prepackaged: please order in increments of 5

| Part No. | Product No. | Pos. | Width | 5     | 50              |
|----------|-------------|------|-------|-------|-----------------|
| 526281   | 390261-1    | 6    | 0.3   | ..... | \$.067 \$.062   |
| 683091   | 1-390261-1  | 6    | 0.3   | ..... | ..... .067 .062 |
| 526299   | 390261-2    | 8    | 0.3   | ..... | ..... .068 .062 |
| 683104   | 1-390261-2  | 8    | 0.3   | ..... | ..... .071 .066 |
| 526192   | 390261-3    | 14   | 0.3   | ..... | ..... .081 .074 |
| 683112   | 1-390261-3  | 14   | 0.3   | ..... | ..... .126 .116 |
| 526205   | 390261-4    | 16   | 0.3   | ..... | ..... .085 .077 |
| 683121   | 1-390261-4  | 16   | 0.3   | ..... | ..... .097 .095 |
| 526213   | 390261-5    | 18   | 0.3   | ..... | ..... .115 .112 |
| 683139   | 1-390261-5  | 18   | 0.3   | ..... | ..... .151 .134 |
| 526221   | 390261-6    | 20   | 0.3   | ..... | ..... .102 .097 |
| 683147   | 1-390261-6  | 20   | 0.3   | ..... | ..... .141 .129 |
| 683163   | 1-390261-8  | 24   | 0.3   | ..... | ..... .177 .175 |
| 526230   | 390262-1    | 24   | 0.6   | ..... | ..... .21 .19   |
| 683198   | 1-390262-1  | 24   | 0.6   | ..... | ..... .179 .175 |
| 683201   | 1-390262-2  | 28   | 0.6   | ..... | ..... .179 .175 |
| 526248   | 390261-9    | 28   | 0.3   | ..... | ..... .243 .235 |
| 683171   | 1-390261-9  | 28   | 0.3   | ..... | ..... .195 .19  |
| 526256   | 390262-2    | 28   | 0.6   | ..... | ..... .176 .168 |
| 526272   | 390262-5    | 40   | 0.6   | ..... | ..... .233 .216 |
| 683227   | 1-390262-5  | 40   | 0.6   | ..... | ..... .263 .261 |

#### Economy Over-the-Component Style

| Part No. | Product No. | Pos. | Width     | 1      | 10      | 100     |
|----------|-------------|------|-----------|--------|---------|---------|
| 526264   | 390263-2    | 32   | 0.6 ..... | \$ .26 | \$ .233 | \$ .225 |
| 683286   | 1-390263-2  | 32   | 0.6 ..... | .20    | .189    | .188    |

#### 500/800 Series Machined Contact

- Precision four fingered contact provides concentric funnel entry for easy flat and round lead insertion
- Non-wicking, closed bottom sleeve gives 100% protection against flux and solder contamination
- Contact resistance: 10mΩ max. • Contact rating: 3A
- Insulation resistance: 5000MΩ @ 500VDC
- Dielectric withstanding voltage: 1000Vrms
- Insulator: UL94V-0 rated thermoplastic polyester
- Sleeve: machined brass / formed copper
- Contact: beryllium copper • Contact plating: gold

#### Solid Insulator (500 Series)

| Part No. | Product No.    | Pos. | Width     | 1      | 10     | 100    |
|----------|----------------|------|-----------|--------|--------|--------|
| 619971   | 508-AG10D♣     | 8    | 0.3 ...   | \$3.49 | \$3.16 | \$2.62 |
| 619989   | 514-AG10D      | 14   | 0.3 ..... | 4.19   | 3.78   | 3.14   |
| 619997   | 514-AG10D-ES♣  | 14   | 0.3 ..... | 3.29   | 2.82   | 2.54   |
| 620007   | 514-AG11D♣     | 14   | 0.3 ..... | 3.39   | 3.08   | 2.08   |
| 620015   | 516-AG10D      | 16   | 0.3 ..... | 5.19   | 5.16   | 4.03   |
| 620023   | 516-AG11D♣     | 16   | 0.3 ..... | 3.65   | 3.32   | 2.75   |
| 620031   | 516-AG-11D-ES♣ | 16   | 0.3 ..... | 1.69   | 1.54   | 1.27   |

#### Open Insulator (800 Series)

| Part No. | Product No. | Pos. | Width     | 1      | 10     | 100    |
|----------|-------------|------|-----------|--------|--------|--------|
| 620285   | 814-AG11D♣  | 14   | 0.3 ...   | \$3.39 | \$3.08 | \$2.55 |
| 620293   | 816-AG11D♣  | 16   | 0.3 ..... | 3.65   | 3.32   | 2.75   |

▲ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

## CA

### .100" DIP Header Plugs

- Gold-plated leads
- Header plugs: keyed corner to indicate pin 1
- U-shaped pin termination for easy component attachment
- Lead length: 0.188" • 0.1" spacing between leads

| Part No. | Prod.No. | Width | Pins     | 1      | 10     | 100   |
|----------|----------|-------|----------|--------|--------|-------|
| 104337   | 8HP      | 0.3"  | 8 ....   | \$1.09 | \$1.03 | \$.99 |
| 37130    | 14HP     | 0.3"  | 14 ..... | 1.19   | .99    | .89   |
| 37331    | 16HP     | 0.3"  | 16 ..... | 1.35   | 1.25   | 1.09  |
| 38579    | 20HP     | 0.3"  | 20 ..... | 2.79   | 2.53   | 2.25  |

## JAMECO

### .100" IDC DIP Flat Cable Plugs

- Mates with standard 14, 16, 20, 24, 26, 28 & 40-pin DIP sockets with 0.1" spacing
- Uses 28 AWG flat ribbon cable, pg 105
- Plastic with gold-plated contacts • Current rating: 1 A

| Part No. | Cross    |       |          |      |       |       |       |       |
|----------|----------|-------|----------|------|-------|-------|-------|-------|
|          | Ref. No. | Width | Contacts | 1    | 10    | 100   | 500   |       |
| 42657    | 609-14   | 0.3"  | 14       | ..   | \$.49 | \$.40 | \$.35 | \$.29 |
| 42673    | 609-16   | 0.3"  | 16       | .... | .55   | .45   | .35   | .30   |
| 104097   | 609-20   | 0.3"  | 20       | .... | .69   | .62   | .55   | .49   |
| 42690    | 609-24   | 0.6"  | 24       | .... | .79   | .71   | .64   | .59   |
| 99670    | 609-28   | 0.6"  | 28       | .... | .89   | .80   | .68   | .51   |
| 42712    | 609-40   | 0.6"  | 40       | ..   | 1.15  | 1.05  | .95   | .85   |

## MOLEX

### .050" (1.27mm) Pitch 72-Position SIMM Sockets

- Accepts JEDEC MO-116 modules
- Contact: phosphor bronze
- Insulation res.: 5000MΩ min.
- Withstanding voltage: 1000VAC
- Voltage (max.): 250V
- Durability: 25 cycles min.
- Contact plating (plating thickness): gold (0.76µm; 30µ"); tin/lead (5µm; 200µ")
- PCB retention: press-fit plastic peg
- Housing: liquid crystal polymer

669791: right polarization; gold contact plating

## MOLEX

### .050" (1.27mm) 168-Position DIMM Sockets

- Accepts JEDEC MO-161 modules
- Contact: phosphor bronze
- Insulation res.: 1000MΩ min
- Withstanding volt.: 500VAC
- Current (max.): 1.0A
- Plating tail: tin/lead
- UL94V-0
- Contact resistance: 30mΩ max.
- Temperature range: -40°C to +85°C
- Contact plating: gold over palladium nickel
- Voltage (max.): 100V
- Under plating: nickel
- Housing: liquid crystal polymer
- Durability: 25 cycles (min.)

| Part No. | Prod. No.  | Description   | Function Key | Voltage Key    | 1      | 10     | 25     | 50     |
|----------|------------|---------------|--------------|----------------|--------|--------|--------|--------|
| 662813   | 71736-0001 | DRAM, 3.3V    | Detail Y     | Detail Y ..... | \$3.69 | \$3.43 | \$3.10 | \$2.79 |
| 662821   | 71736-0002 | DRAM, 5.0V    | Detail Y     | Detail Z ..... | 3.89   | 3.60   | 3.24   | 2.93   |
| 662830   | 71736-0005 | Unbuff., 5.0V | Detail X     | Detail Z ..... | 3.35   | 3.09   | 2.78   | 2.72   |
| 662848   | 71736-0006 | SDRAM, 3.3V   | Detail Z     | Detail Y ..... | 3.69   | 3.43   | 3.10   | 2.79   |
| 668529   | 71251-0001 | DRAM, 3.3V    | Detail Y     | Detail Y ..... | 3.75   | 3.56   | 3.32   | 3.13   |
| 668545   | 71251-0002 | Unbuff., 3.3V | Detail X     | Detail Y ..... | 4.45   | 4.27   | 4.08   | 3.71   |
| 668537   | 71251-0016 | SDRAM, 3.3V   | Detail Z     | Detail Y ..... | 4.45   | 4.27   | 4.08   | 3.71   |

## MOLEX

### .050" (1.27mm) 184-Position DDR DIMM Sockets

- Current (max.): 1.0A
- Withstanding voltage: 500VAC
- Contact: copper alloy; except for 668502: phosphor bronze
- Plating tail: tin, lead free
- Under plating: nickel
- Voltage key: 2.5V, left
- Insulation resistance: 1000MΩ min.
- UL94V-0
- Durability: 25 cycles min.
- Housing: high temp. thermoplastic
- Contact plating: .38µm (15µ") gold
- Temperature range: -10°C to +85°C

| Part No. | Prod. No.  | Description | Voltage (max.) | Contact Res. max. | 1      | 10     | 25     | 50     |
|----------|------------|-------------|----------------|-------------------|--------|--------|--------|--------|
| 668511   | 87623-2001 | 25° LP      | 50V            | 40mΩ              | \$7.69 | \$7.39 | \$7.10 | \$6.45 |
| 668502   | 87636-2002 | Vertical    | 50V            | 30mΩ              | 1.85   | 1.76   | 1.67   | 1.52   |
| 668490   | 87655-0004 | Rt. angle   | 125V           | 30mΩ              | 12.75  | 12.19  | 11.63  | 10.57  |

## JAMECO

### PLCC Surface Mount Socket

- Current: 1A
- Dielectric strength: 600VAC for 1 minute
- Insulator resistance: 5000MΩ minimum
- Temperature surface mount: -55°C/ +170°C

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## JAMECO

### PLCC Solder Tail Sockets

- Solder tail allows through-hole board patterns in .100" grid
- Accepts JEDEC type "A" plastic leaded chip (0.05" centers)
- Thru-hole lead length: .125"
- Body height: .375"

| Cross    |          | EXCLUSIVE |       |        |       |       |       |
|----------|----------|-----------|-------|--------|-------|-------|-------|
| Part No. | Ref. No. | Pins      | 1     | 10     | 50    | 100   |       |
| 71618    | G1P444   | 44        | ..... | \$1.15 | \$.99 | \$.81 | \$.69 |
| 72442    | G1P452   | 52        | ..... | .99    | .79   | .65   | .55   |
| 71969    | G1P468   | 68        | ..... | 1.15   | .99   | .89   | .79   |
| 71976    | G1P484   | 84        | ..... | 1.29   | 1.16  | 1.04  | .88   |

#### Other Manufacturers — Great Deals

|        |          |    |       |        |       |       |       |
|--------|----------|----|-------|--------|-------|-------|-------|
| 687703 | 821574-1 | 68 | ..... | \$1.03 | \$.93 | \$.84 | \$.75 |
| 687691 | 821573-1 | 84 | ..... | 1.16   | 1.09  | .98   | .85   |





## N-Type Crimp Plug

- Silver-plated
- Attachment (outer/inner): crimp/crimp

697012: RG8/9/87A/213/214/225

697021: RG55/142/223/400

188445: RG58/141



Lower \$\$\$

| Part No. | Product No. | 1       | 10      | 25      |
|----------|-------------|---------|---------|---------|
| 697012   | 82-4425     | \$14.15 | \$13.71 | \$13.09 |
| 697021   | 82-5370     | 10.35   | 10.05   | 9.61    |
| 188445   | 82-5375-RFX | 4.19    | 3.40    | 3.37    |

To Find Additional Products In This Series,  
Visit [www.Jameco.com/Prod/AmphenolN](http://www.Jameco.com/Prod/AmphenolN)

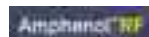


## N-Type Adapter

- In-series
- Socket/socket
- Body style: bulkhead
- Brass, nickel plated
- Contact: Beryllium copper, silver plated



| Part No. | Product No. | 1       | 10      | 25      |
|----------|-------------|---------|---------|---------|
| 697039   | 82-66       | \$24.99 | \$24.26 | \$22.36 |



## SMA Crimp Plug

- Frequency range: 0-18GHz
- Outer cable attachment: crimp
- Inner cable attachment: solder
- Construction: captive contact
- Type: crimp plug
- Material: brass
- For RG174/U, RG188/U, and RG316/U cables



Lower \$\$\$

| Part No. | Product No.  | 1      | 10     | 25     |
|----------|--------------|--------|--------|--------|
| 188488   | 901-9877-RFX | \$2.79 | \$2.45 | \$1.71 |



## SMA PCB Jacks

- Applications: cellular phone, data communication, instrumentation and video
- 50Ω impedance
- Frequency range: 0-18GHz
- Temperature range: -65°C to 165°C



| Part No. | Product No.   | 1      | 10     | 25     |
|----------|---------------|--------|--------|--------|
| 188509   | 901-144-8-RFX | \$3.35 | \$2.99 | \$2.42 |
| 188525   | 901-143-6-RFX | 5.19   | 4.20   | 3.65   |



## SMA Adapter

- In-series
- Socket/socket
- Body style: straight
- DC-18GHz max.



| Part No. | Product No. | 1       | 10      | 25      |
|----------|-------------|---------|---------|---------|
| 697047   | 901-9209A   | \$18.79 | \$18.25 | \$16.32 |



## BNC Connectors

### T3/E3 Applications

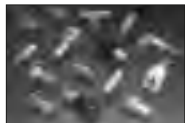
- PC board/panel mount jacks
- Crimp jacks • Crimp plugs

### Additional Hardware

- Washers • Nuts

These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

See Our AMP BNC Connector Offering at  
[www.Jameco.com/Prod/AMPBNC](http://www.Jameco.com/Prod/AMPBNC)



▲ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product

⊕ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.

## BNC Connectors and Adapters



- Frequency range: 0-4GHz
- Contact plating: silver/gold
- Cable type:
  - 223394: RG59/62/71/140/210/302
  - 696141: RG108A
  - 696159: RG174/188A/316/Belden 7805A
  - 188349: RG174/188/316
  - 188306: RG58/184
  - 567605: RG59/62

- Working voltage: 500V
- Body plating: nickel/tin-lead

567630: RG58/141

567648: RG59/62/140/210/302

567664/567672: Belden 9248/1694A/RG6

567681: Belden 8218

696757: RG174/188A/316/Belden 7805A

Lower \$\$\$

Quantity SAVE



| Part No. | Product No. | Fig. | Industry No. | Description                                   | 1      | 10     | 25     |
|----------|-------------|------|--------------|---|--------|--------|--------|
| 567699   | 31-9-RFX    | 1    | —            | 50Ω BNC adapter, R/A, jack-plug               | \$3.09 | \$3.01 | \$2.95 |
| 696132   | 31-10       | —    | —            | 50Ω receptacle, straight/bulkhead, solder cup | 5.19   | 5.09   | 5.05   |
| 223394   | 31-12       | 2    | UG-260/U     | 50Ω plug, straight, clamp                     | 7.29   | 5.54   | 5.14   |
| 188429   | 31-208-RFX  | 3    | —            | 50Ω Jack-plug-jack                            | 4.19   | 3.39   | 2.65   |
| 188411   | 31-219-RFX  | 4    | —            | 50Ω Straight jack-to-jack                     | 3.15   | 2.74   | 2.06   |
| 188402   | 31-220G-RFX | 5    | —            | 50Ω Gasketed jack-to-jack                     | 3.89   | 3.03   | 2.50   |
| 223554   | 31-3220     | 6    | UG-492D/U    | 50Ω bulkhead adapter, straight, jack-jack     | 10.25  | 8.71   | 6.53   |
| 223511   | 31-221      | 7    | UG-1094/U    | 50Ω bulkhead receptacle, straight, solder cup | 2.49   | 1.99   | 1.41   |
| 223538   | 31-2221     | 8    | UG-1094A/U   | 50Ω bulkhead receptacle, straight, solder cup | 2.89   | 2.48   | 2.03   |
| 696141   | 31-2226     | 2    | —            | 50Ω plug, twin BNC, straight, clamp/solder    | 18.49  | 17.96  | 16.58  |
| 696159   | 31-315      | 9    | —            | 50Ω plug crimp, 3-piece                       | 6.25   | 6.05   | 5.39   |
| 188349   | 31-315-RFX  | 10   | —            | 50Ω plug crimp, 3-piece                       | 1.99   | 1.63   | 1.22   |
| 188306   | 31-320-RFX  | 9    | —            | 50Ω plug crimp, 3-piece                       | 1.75   | 1.30   | 1.06   |
| 567605   | 31-321-RFX  | 9    | —            | 50Ω plug crimp, 3-piece                       | 1.39   | 1.25   | 1.14   |
| 567613   | 31-4700     | —    | —            | 50Ω bulkhead plug, FCP for RG58               | 4.65   | 4.48   | 4.27   |
| 567621   | 31-5136     | 11   | —            | 50Ω bulkhead plug, Supertwist® for RG59       | 4.25   | 3.89   | 3.55   |
| 567630   | 31-5800     | 9    | —            | 50Ω plug crimp, 3-piece                       | 2.05   | 1.88   | 1.73   |
| 567648   | 31-5900     | 9    | —            | 50Ω plug crimp, 3-piece                       | 2.05   | 1.88   | 1.71   |
| 567664   | 31-7000     | 9    | —            | 75Ω plug crimp, 3-piece                       | 4.89   | 4.54   | 4.18   |
| 567672   | 31-7000-RFX | 9    | —            | 75Ω plug crimp, 3-piece                       | 2.49   | 2.24   | 2.07   |
| 567681   | 31-71033    | 9    | —            | 75Ω plug crimp, 3-piece                       | 3.09   | 2.92   | 2.68   |
| 567701   | 68175-5RFX  | 9    | —            | 50Ω plug, crimp for RG59                      | 1.39   | 1.28   | 1.18   |
| 696757   | 69475       | 2    | —            | 50Ω plug, straight, clamp/solder              | 10.23  | 8.99   | 7.76   |

\* Nickel-plated/Gold plated brass contacts

⊕ Blue Part No. = Limited Quantity Available



## Universal Hand Crimp Tools

Amphenol Connex 47 series coax crimp tools utilize industry standard crimp die-set dimensions. Full ratchet crimp action assures complete crimp before release.

• 667850/667884/667892/

667905/668027: for BNC/TNC connectors

• 667868/667981: for N type connectors

• 667921: for BNC/TNC/N type connectors



| Part No. | Product No. | Crimp Tool | Die Cavities (in.)       | Cable Groups                                  | 1       | 5       |
|----------|-------------|------------|--------------------------|---|---------|---------|
| 667850   | 47-10070    | A          | .255/.213/.068           | RG-55/58/59/62/141/142/223/303/400            | \$59.99 | \$57.99 |
| 667905   | 47-10150    | B          | .178/.128/.068           | RG-174/188/316/179/187/180/195/178/196        | 47.95   | 44.84   |
| 667913   | 47-10160    | C          | .151/.178/.213           | .151 Hex 316/179/Double braid                 | 57.05   | 56.05   |
| 667868   | 47-10090    | D          | .429/.100/.080           | RG-8/11/213/214/225/393/N Series              | 45.65   | 42.75   |
| 667981   | 47-10230    | D          | .429/.213/.100           | RG-8/11/213/214/225/393/58/141/223/55/142/400 | 46.75   | 44.99   |
| 667884   | 47-10110    | E          | .324/.255/.068/.042      | RG-6/59/B8281                                 | 51.65   | 44.84   |
| 667892   | 47-10120    | F          | .213/.178/.068/.042      | RG-58/174/188/316/179/187/142/141/223/400/55  | 46.75   | 44.99   |
| 667921   | 47-10180    | J          | .255/.213/.100/.068/.052 | 5 cavity RG-58/59 N/BNC/TNC/SMA connectors    | 45.65   | 42.75   |
| 667964   | 47-10210    | L          | .429/.118                | LMR400/B9913/B9914/B7810A                     | 45.65   | 42.75   |
| 668027   | 47-10270    | R          | .178/.128/.068/.042      | BNC/TNC .068 and .042 crimp center contact    | 48.45   | 46.14   |
| 667833   | 47-10000    | —          | —                        | Frame only                                    | 43.75   | 40.71   |



## BNC Connectors and Adapters 50Ω/75Ω

| Part No. | Prod. No. | Fig. | Crimp Tool* | Description                                    | Cable Groups                        | 1      | 10     | 25     |
|----------|-----------|------|-------------|--|-------------------------------------|--------|--------|--------|
| 295953   | 112116    | R 1  | A           | 50Ω straight crimp plug, captive contact       | RG-58/58A/58C/141/303/LMR195/B7806A | \$1.40 | \$1.34 | \$1.28 |
| 295970   | 112119    | R 1  | A           | 75Ω straight crimp plug, captive contact       | RG-59/62/140/210                    | 1.45   | 1.39   | 1.32   |
| 296008   | 112132    | R 1  | B           | 50Ω straight crimp plug, captive contact       | RG-174/188A/316/B7805A              | 1.85   | 1.76   | 1.68   |
| 296016   | 112133    | R 1  | B           | 75Ω straight crimp plug, captive contact       | RG-179/187/B9221                    | 1.40   | 1.34   | 1.28   |
| 296032   | 112144    | R 2  | A           | 50Ω straight crimp jack                        | RG-58/58A/58C/141/303/LMR195/B7806A | 1.79   | 1.71   | 1.62   |
| 296041   | 112160    | R 2  | B           | 50Ω straight crimp jack                        | RG-174/188A/316/B7805A              | 1.89   | 1.79   | 1.70   |
| 296631   | 112161    | R 2  | B           | 75Ω straight crimp jack                        | RG-179/187/B9221                    | 2.09   | 1.97   | 1.85   |
| 296420   | 112162    | R 3  | A           | 50Ω right angle crimp/solder plug              | RG-58/58A/58C/141/303/LMR195/B7806A | 3.09   | 2.95   | 2.81   |
| 296614   | 112178    | R 3  | B           | 50Ω right angle crimp/solder plug              | RG-174/188A/316/B7805A              | 3.49   | 3.43   | 3.09   |
| 658371   | 112202    | R 4  | A           | 50Ω bulkhead crimp jack                        | RG-58/58A/58C/141/303/LMR195/B7806A | 3.35   | 3.20   | 3.05   |
| 658398   | 112234    | R 4  | B           | 50Ω bulkhead crimp jack                        | RG-174/188A/316/B7805A              | 3.25   | 2.98   | 2.93   |
| 658401   | 112235    | R 4  | B           | 75Ω bulkhead crimp jack                        | RG-179/187/B9221                    | 3.15   | 3.06   | 2.91   |
| 658435   | 112290    | R 5  | —           | 50Ω panel receptacle jack                      | All 50Ω coax cables                 | 3.85   | 3.15   | 2.99   |
| 658478   | 112349    | R 6  | —           | 50Ω jack-to-jack bulkhead adapter, isolated    | —                                   | 4.29   | 4.00   | 3.86   |
| 296059   | 112404    | R 7  | —           | 50Ω straight PCB mount jack                    | All 50Ω coax cables                 | 1.65   | 1.55   | 1.48   |
| 658427   | 112424    | R 8  | —           | 50Ω receptacle jack, solder terminal           | All 50Ω coax cables                 | 1.59   | 1.51   | 1.43   |
| 296067   | 112431    | R 9  | —           | 50Ω bulkhead rec. jack, isolated, solder term. | All 50Ω coax cables                 | 2.75   | 2.46   | 2.21   |
| 658451   | 112437    | R 10 | —           | 50Ω jack-to-jack bulkhead adapter              | All 50Ω coax cables                 | 2.99   | 2.93   | 2.78   |
| 658460   | 112438    | R 10 | —           | 75Ω jack-to-jack adapter                       | All 75Ω coax cables                 | 2.99   | 2.88   | 2.74   |
| 296075   | 112440    | R 10 | —           | 75Ω bulkhead jack-to-jack adapter, isolated    | All 75Ω coax cables                 | 3.75   | 3.45   | 3.15   |
| 658486   | 112443    | R 11 | —           | 50Ω jack-to-jack bulkhead adapter, isolated    | All 50Ω coax cables                 | 3.19   | 3.03   | 2.87   |
| 658494   | 112444    | R 11 | —           | 75Ω jack-to-jack bulkhead adapter, isolated    | All 75Ω coax cables                 | 3.29   | 3.18   | 3.02   |
| 658507   | 112445    | R 12 | —           | 50Ω jack-to-jack adapter                       | All 50Ω coax cables                 | 2.15   | 2.04   | 1.93   |
| 296083   | 112446    | R 12 | —           | 75Ω jack-to-jack adapter                       | All 75Ω coax cables                 | 1.89   | 1.79   | 1.70   |
| 658515   | 112461    | R 13 | —           | 50Ω T-adapter, jack-plug-jack                  | All 50Ω coax cables                 | 1.85   | 1.76   | 1.66   |
| 658380   | 112505    | R 4  | A           | 50Ω bulkhead crimp jack                        | RG-55/142/223/400                   | 2.89   | 2.78   | 2.67   |
| 296091   | 112507    | R 1  | A           | 50Ω straight crimp plug                        | RG-59U 20AWG/B-91-8/B1515/B9104     | 1.55   | 1.52   | 1.38   |
| 296198   | 112508    | R 1  | E           | 75Ω straight crimp plug, captive contact       | RG-6/143/212/B3092/B3093            | 1.46   | 1.39   | 1.33   |
| 295996   | 112512    | R 1  | B           | 50Ω straight crimp plug, captive contact       | 316/U double braided                | 1.99   | 1.98   | 1.43   |
| 296622   | 112513    | R 2  | A           | 50Ω straight crimp jack                        | RG-55/142/223/400                   | 1.89   | 1.80   | 1.70   |
| 296104   | 112514    | R 1  | A           | 50Ω straight crimp plug, captive contact       | RG-55/142/223/400                   | 1.47   | 1.41   | 1.35   |
| 296024   | 112516    | R 1  | B           | 50Ω straight crimp plug, captive contact       | RG-178/196                          | 2.05   | 1.88   | 1.71   |
| 296497   | 112526    | R 3  | A           | 50Ω BNC right angle crimp/solder plug          | RG-55/142/223/400                   | 4.15   | 3.99   | 3.78   |
| 296139   | 112533    | R 1  | A           | 50Ω straight crimp plug, captive contact       | RG-8X/LMR240/B7808A                 | 1.48   | 1.42   | 1.35   |
| 658443   | 112538    | R 14 | —           | 50Ω straight jack PCB mount                    | All 50Ω coax cables                 | 1.79   | 1.70   | 1.61   |
| 296243   | 112551    | R 1  | —           | 50Ω straight solder plug, 0.141 semi-rigid     | RG-402/U                            | 1.85   | 1.63   | 1.47   |
| 296112   | 112562    | R 1  | D           | 50Ω straight crimp plug, captive contact       | RG-8/8A/213/393                     | 4.59   | 4.15   | 3.71   |
| 296147   | 112563    | R 1  | L           | 50Ω straight crimp plug, captive contact       | B9913/LMR400/B7810A/B8214           | 4.39   | 4.19   | 4.00   |
| 296121   | 112565    | R 1  | E           | 75Ω BNC straight crimp plug, captive contact   | RG- B1694A/B889248                  | 1.65   | 1.62   | 1.45   |
| 658419   | 112581    | R 4  | —           | 50Ω bulkhead crimp jack, 0.141 semi-rigid      | RG-402/U                            | 2.85   | 2.58   | 2.32   |
| 295988   | 112597    | R 10 | —           | 50Ω BNC straight crimp plug, captive contact   | RG- LMR200/B7807A                   | 1.85   | 1.82   | 1.65   |
| 658540   | 202100    | R 15 | —           | Male cap with chain                            | All BNC female connectors           | 1.89   | 1.80   | 1.78   |
| 658523   | 202103    | R 16 | —           | 50Ω terminator plug                            | All 50Ω coax cables                 | 1.79   | 1.71   | 1.62   |
| 658531   | 202105    | R 16 | —           | 75Ω terminator plug                            | All 75Ω coax cables                 | 2.09   | 2.02   | 1.93   |
| 658558   | 202114    | R 15 | —           | Male shorting cap with chain                   | All BNC female connectors           | 2.45   | 2.35   | 2.25   |



## MCX/MMCX Connectors 50Ω

| Part No. | Prod. No. | Fig. | Crimp Tool* | Description                                | Cable Groups                        | 1      | 10     | 25     |
|----------|-----------|------|-------------|--|-------------------------------------|--------|--------|--------|
| 296649   | 252102    | R 17 | B           | MCX right angle crimp plug                 | RG-174/188A/316/B7805A              | \$4.35 | \$3.84 | \$3.55 |
| 662506   | 252103    | R 18 | B           | MCX straight crimp plug                    | RG-174/188A/316/B7805A              | 4.15   | 4.09   | 4.04   |
| 296657   | 252105    | R 19 | —           | MCX straight jack, PCB                     | All 50Ω coax cables                 | 3.39   | 3.24   | 3.09   |
| 662522   | 252107    | R 18 | —           | MCX straight solder plug, 0.085 semi-rigid | RG-405/U                            | 3.59   | 3.43   | 3.27   |
| 296665   | 252109    | R 17 | —           | MCX rt angle solder plug, 0.085 semi-rigid | RG-405/U                            | 4.25   | 4.05   | 3.86   |
| 662531   | 252115    | R 17 | A           | MCX right angle crimp plug                 | RG-58/58A/58C/141/303/LMR195/B7806A | 5.59   | 5.36   | 5.12   |
| 662514   | 252127    | R 18 | B           | MCX straight crimp plug                    | RG-178/196                          | 5.05   | 4.83   | 4.61   |
| 662549   | 252153    | R 20 | —           | MCX straight plug, PCB                     | .....                               | 4.65   | 4.44   | 4.24   |
| 296673   | 262102    | R 21 | B           | MMCX right angle cable plug                | RG-178/196                          | 3.15   | 3.09   | 2.98   |
| 296681   | 262103    | R 21 | B           | MMCX right angle cable plug                | RG-174/188A/316/B7805A              | 3.15   | 3.09   | 2.98   |

\* Crimp tools for these connectors are on page 150

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

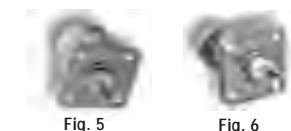
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|-------------------|------|---------|---------|
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## Amphenol Connex

## Type N Connectors 50Ω



| Part No. | Prod. No.  | Fig. | Crimp Tool* | Description                               | Cable Groups                        | 1      | 10     | 25     |
|----------|------------|------|-------------|---|-------------------------------------|--------|--------|--------|
| 296454   | 172100     | R 1  | J           | Straight crimp plug captive contact       | RG-58/58A/58C/141/303/LMR195/B7806A | \$3.55 | \$3.06 | \$2.96 |
| 296462   | 172102     | R 1  | D           | Straight crimp plug captive contact       | RG-8/8A/213/393                     | 3.89   | 3.72   | 3.54   |
| 296471   | 172102H243 | R 1  | L           | Straight crimp plug captive contact       | RG-B9913/LMR400/B7810A/B8214        | 5.25   | 4.75   | 4.31   |
| 296489   | 172103     | R 2  | J           | Straight crimp jack captive contact       | RG-58/58A/58C/141/303/LMR195/B7806A | 3.55   | 3.38   | 3.20   |
| 659198   | 172106     | R 3  | J           | Bulkhead crimp jack captive contact       | RG-58/58A/58C/141/303/LMR195/B7806A | 6.19   | 5.98   | 5.68   |
| 659251   | 172117     | R 4  | —           | Panel receptacle jack                     | —                                   | 4.25   | 4.06   | 3.88   |
| 659260   | 172118     | R 5  | —           | Panel receptacle jack, solder terminal    | —                                   | 6.09   | 5.88   | 5.27   |
| 659278   | 172119     | R 6  | —           | Panel receptacle jack, solder terminal    | All 50Ω coax cables                 | 4.65   | 4.20   | 3.75   |
| 659286   | 172122     | R 7  | —           | Plug-to-plug adapter                      | All 50Ω coax cables                 | 5.85   | 5.59   | 5.34   |
| 659294   | 172123     | R 8  | —           | Jack-to-jack adapter                      | All 50Ω coax cables                 | 4.15   | 3.99   | 3.80   |
| 659307   | 172124     | R 9  | —           | Bulkhead jack-to-jack adapter             | —                                   | 6.05   | 5.80   | 5.54   |
| 659315   | 172126     | R 10 | —           | Angled plug-to-jack adapter               | —                                   | 7.69   | 7.45   | 7.26   |
| 296500   | 172128     | R 1  | B/J         | Straight crimp plug captive contact       | RG-174/188A/316/B7805A              | 4.75   | 4.09   | 3.96   |
| 296518   | 172129     | R 3  | B           | Bulkhead crimp jack captive contact       | RG-174/188A/316/B7805A              | 5.35   | 4.62   | 4.47   |
| 296526   | 172132     | R 3  | J           | Bulkhead crimp jack captive contact       | RG-55/142/223/400                   | 5.09   | 4.87   | 4.65   |
| 296534   | 172133     | R 11 | —           | Straight solder plug, 0.141 semi-rigid    | RG-402/U                            | 4.75   | 4.11   | 3.15   |
| 296542   | 172135     | R 1  | J           | Straight crimp plug captive contact       | RG-8X/LMR240/B7808A                 | 3.79   | 3.31   | 3.20   |
| 296551   | 172137     | R 3  | —           | Bulkhead solder jack, 0.141 semi-rigid    | RG-402/U                            | 6.85   | 5.93   | 4.55   |
| 296569   | 172138     | R 3  | —           | Bulkhead solder jack, 0.085 semi-rigid    | RG-405/U                            | 5.29   | 4.82   | 4.51   |
| 2965155  | 172139     | R 1  | —           | Straight solder plug, 0.250 semi-rigid    | 0.250 semi-rigid                    | 4.85   | 4.13   | 3.79   |
| 296577   | 172142     | R 1  | J           | Straight crimp plug captive contact       | RG-55/142/223/400                   | 4.55   | 4.26   | 4.11   |
| 659243   | 172147     | R 2  | J           | Straight crimp jack captive contact       | RG-55/142/223/400                   | 3.65   | 3.52   | 3.36   |
| 659201   | 172149     | R 3  | J           | Bulkhead crimp jack captive contact       | RG-8X/LMR240/B7808A                 | 5.09   | 4.43   | 4.28   |
| 296585   | 172165     | R 3  | B           | Bulkhead crimp jack captive contact       | RG-316/U double braided             | 7.09   | 6.85   | 6.65   |
| 659139   | 172166     | R 1  | D           | Straight crimp plug captive contact       | RG-214/225                          | 4.35   | 4.11   | 3.87   |
| 659121   | 172171     | R 1  | B/J         | Straight crimp plug captive contact       | RG-316/U double braided             | 5.45   | 5.19   | 4.95   |
| 659235   | 172173     | R 12 | B/J         | Straight crimp panel jack captive contact | RG-174/188A/316/B7805A              | 6.29   | 6.03   | 5.76   |
| 659227   | 172175     | R 12 | J           | Straight crimp panel jack captive contact | RG-55/142/223/400                   | 7.25   | 6.88   | 6.61   |
| 659180   | 172176     | R 12 | L           | Right angle crimp plug                    | B9913/LMR400/B7810A/B8214           | 6.05   | 5.50   | 5.17   |
| 659163   | 172177     | R 12 | A           | Right angle crimp plug                    | RG-58/58A/58C/141/303/LMR195/B7806A | 7.39   | 6.44   | 6.22   |
| 296593   | 172178     | R 13 | A           | Right angle crimp plug                    | RG-55/142/223/400                   | 7.69   | 6.61   | 6.06   |
| 659171   | 172180     | R 13 | B/J         | Right angle crimp plug                    | RG-174/188A/316/B7805A              | 7.69   | 7.32   | 6.78   |
| 296606   | 172203     | R 2  | L           | Straight crimp jack captive contact       | B9913/LMR400/B7810A/B8214           | 3.75   | 3.39   | 3.05   |
| 659147   | 172206     | R 1  | HEX         | Straight crimp plug captive contact       | LMR600                              | 8.55   | 7.44   | 7.19   |
| 659219   | 172208     | R 12 | J           | Straight crimp panel jack captive contact | RG-58/58A/58C/141/303/LMR195/B7806A | 5.55   | 5.31   | 5.06   |
| 659112   | 172214     | R 1  | J           | Straight crimp plug captive contact       | LMR200/B7807A                       | 3.89   | 3.37   | 3.08   |
| 659323   | 202102     | R 14 | —           | N male cap and chain, nickel plated       | —                                   | 1.79   | 1.69   | 1.58   |

## Amphenol Connex

## TNC Connectors 50Ω/75Ω





































| Part No. | Prod. No. | Fig. | Crimp Tool* | Description                                 | Cable Groups                        | 1      | 10     | 25     |
|----------|-----------|------|-------------|---|-------------------------------------|--------|--------|--------|
| 296155   | 122108    | R 15 | A           | 50Ω straight crimp plug                     | RG-58/58A/58C/141/303/LMR195/B7806A | \$1.37 | \$1.20 | \$1.16 |
| 658574   | 122111    | R 15 | A           | 75Ω straight crimp plug                     | RG-59/62/140/210                    | 1.40   | 1.34   | 1.28   |
| 658603   | 122116    | R 15 | B           | 50Ω straight crimp plug                     | RG-174/188A/316/B7805A              | 1.75   | 1.52   | 1.47   |
| 658671   | 122122    | R 16 | A           | 50Ω straight crimp jack                     | RG-58/58A/58C/141/303/LMR195/B7806A | 1.99   | 1.69   | 1.55   |
| 658611   | 122140    | R 17 | A           | 50Ω right angle crimp/solder plug           | RG-58/58A/58C/141/303/LMR195/B7806A | 2.99   | 2.58   | 2.50   |
| 658638   | 122148    | R 17 | B           | 50Ω right angle crimp/solder plug           | RG-174/188A/316/B7805A              | 3.25   | 2.83   | 2.74   |
| 296171   | 122160    | R 18 | A           | 50Ω bulkhead crimp jack                     | RG-58/58A/58C/141/303/LMR195/B7806A | 2.89   | 2.49   | 2.40   |
| 296180   | 122192    | R 18 | B           | 50Ω bulkhead crimp jack                     | RG-174/188A/316/B7805A              | 2.89   | 2.49   | 2.40   |
| 658700   | 122248    | R 19 | —           | 50Ω panel receptacle jack                   | All 50Ω coax cables                 | 2.19   | 2.12   | 2.05   |
| 658697   | 122332    | R 20 | —           | 50Ω bulkhead receptacle jack, solder trnlns | —                                   | 1.65   | 1.59   | 1.49   |
| 658646   | 122358    | R 18 | B           | 50Ω bulkhead crimp jack                     | RG-316/U double braided             | 2.85   | 2.63   | 2.40   |
| 658654   | 122370    | R 18 | B           | 50Ω bulkhead crimp jack                     | RG-178/196                          | 3.35   | 3.20   | 3.05   |
| 296163   | 122372    | R 15 | A           | 50Ω straight crimp plug                     | RG-55/142/223/400                   | 1.47   | 1.41   | 1.35   |
| 658689   | 122373    | R 20 | A           | 50Ω straight crimp jack                     | RG-55/142/223/400                   | 1.55   | 1.47   | 1.39   |
| 296201   | 122393    | R 15 | L           | 50Ω straight crimp plug                     | B9913/LMR400/B7810A/B8214           | 5.55   | 4.77   | 4.38   |
| 658582   | 122394    | R 15 | D           | 50Ω straight crimp plug                     | RG-8/8A/213/393                     | 4.39   | 4.15   | 4.00   |
| 658591   | 122408    | R 15 | A           | 50Ω straight crimp plug                     | RG-8X/LMR240/B7808A                 | 1.59   | 1.38   | 1.33   |
| 658566   | 122410    | R 15 | A           | 50Ω straight crimp plug                     | LMR200/B7807A                       | 1.39   | 1.26   | 1.13   |
| 296219   | 122426    | R 15 | A           | 75Ω straight crimp plug                     | RG-59/U 20 AWG/B9108/B1515/B9104    | 1.85   | 1.79   | 1.76   |
| 658620   | 122430    | R 16 | A           | 50Ω right angle crimp/solder plug           | RG-55/142/223/400                   | 3.19   | 2.93   | 2.68   |

\* Crimp tools for these connectors are on page 150



## Amphenol Connex

## SMA Connectors 50Ω






| Part No. | Prod. No. | Fig.  | Crimp Tool* | Description  | Cable Groups                           | 1      | 10     | 25     |
|----------|-----------|---|-------------|--|--|--------|--------|--------|
| 658718   | 132100    |    | 1           | — Straight cable plug, 0.141 semi-rigid                          | RG-402U .....                          | \$1.46 | \$1.27 | \$1.18 |
| 296227   | 132101    |    | 1           | — Straight cable plug w/contact, 0.085 semi-rigid                | RG-405U .....                          | 2.79   | 2.34   | 2.15   |
| 296235   | 132102    |    | 1           | — Straight cable plug w/contact, 0.141 semi-rigid                | RG-402U .....                          | 2.65   | 2.28   | 2.09   |
| 296251   | 132105    |    | 2           | — Bulkhead feed through cable jack-o-ring seal, 0.141 semi-rigid | RG-405U .....                          | 4.39   | 3.96   | 3.56   |
| 296260   | 132106    |    | 2           | — Bulkhead feed through cable jack-o-ring seal, 0.085 semi-rigid | RG-402U .....                          | 4.89   | 4.56   | 4.21   |
| 296278   | 132107    |    | 3           | — Panel mount cable jack, 4-hole square flange, 0.085 semi-rigid | RG-405U .....                          | 4.65   | 4.45   | 4.24   |
| 658726   | 132108    |    | 3           | — Panel cable cable jack, 4-hole square flange, 0.141 semi-rigid | RG-402U/.141 semi-rigid .....          | 5.09   | 4.95   | 4.63   |
| 296286   | 132109    |    | 4           | — Panel mount cable jack, 2-hole flange, 0.085 semi-rigid        | RG-402U .....                          | 4.15   | 3.74   | 3.55   |
| 658734   | 132110    |    | 4           | — Panel mount cable jack, 2-hole flange, 0.141 semi-rigid        | RG-402U/.141 semi-rigid .....          | 4.79   | 4.59   | 4.29   |
| 296294   | 132111    |    | 5           | — Right angle cable plug, 0.085 semi-rigid                       | RG-405U .....                          | 4.09   | 3.67   | 3.31   |
| 296307   | 132112    |    | 5           | — Right angle cable plug, 0.141 semi-rigid                       | RG-402U .....                          | 4.29   | 3.88   | 3.47   |
| 296315   | 132113    |    | 1           | A Straight crimp plug  | RG-58/58A/58C/141/303/LMR195/B7806A .. | 3.15   | 2.72   | 2.19   |
| 296323   | 132114    |    | 18          | B Straight crimp plug  | RG-174/188A/316/B7805A .....           | 2.85   | 2.44   | 2.23   |
| 296340   | 132116    |    | 6           | A Straight crimp jack  | RG-58/58A/58C/141/303/LMR195/B7806A .. | 4.39   | 3.83   | 3.51   |
| 658945   | 132117    |    | 6           | B Straight crimp jack  | RG-174/188A/316/B7805A .....           | 3.69   | 3.33   | 3.00   |
| 658849   | 132118    |    | 7           | A Bulkhead crimp jack  | RG-58/58A/58C/141/303/LMR195/B7806A .. | 4.45   | 3.85   | 3.53   |
| 296331   | 132119    |    | 7           | B Bulkhead crimp jack  | RG-174/188A/316/B7805A .....           | 4.45   | 4.05   | 3.68   |
| 296358   | 132122    |    | 5           | A Right angle crimp plug   | RG-58/58A/58C/141/303/LMR195/B7806A .. | 5.49   | 4.96   | 4.47   |
| 296366   | 132123    |    | 5           | B Right angle crimp plug   | RG-174/188A/316/B7805A .....           | 4.95   | 4.46   | 4.05   |
| 296374   | 132134    |    | 8           | — Straight jack, PCB terminals                                   | All 50Ω coax cables .....              | 3.45   | 3.29   | 3.13   |
| 658996   | 132136    |  | 9           | — Right angle jack, PCB  | All 50Ω coax cables .....              | 5.75   | 5.51   | 5.26   |
| 659016   | 132137    |  | 10          | — Bulkhead jack receptacle, solder terminal                      | — .....                                | 4.79   | 4.61   | 4.40   |
| 296382   | 132146    |  | 3           | — Panel mount jack receptacle, 4-hole square flange              | — .....                                | 6.49   | 6.36   | 5.93   |
| 659024   | 132147    |  | 11          | — Panel mount jack receptacle, 2-hole flange                     | — .....                                | 5.95   | 5.15   | 4.72   |
| 659032   | 132168    |  | 12          | — Plug-to-plug adapter   | All 50Ω coax cables .....              | 4.59   | 4.38   | 4.17   |
| 659041   | 132169    |  | 13          | — Jack-to-jack adapter   | All 50Ω coax cables .....              | 3.85   | 3.67   | 3.50   |
| 659059   | 132170    |  | 14          | — Jack-to-jack adapter, bulkhead feedthrough                     | — .....                                | 6.19   | 5.89   | 5.56   |
| 659067   | 132171    |  | 15          | — Plug-to-jack adapter   | All 50Ω coax cables .....              | 4.85   | 4.64   | 4.41   |
| 659075   | 132172    |  | 16          | — Right angle plug-to-jack adapter                               | All 50Ω coax cables .....              | 6.39   | 5.90   | 5.46   |
| 296391   | 132178    |  | 18          | C Straight crimp plug  | RG-316U double braided .....           | 3.35   | 3.19   | 3.05   |
| 658822   | 132182    |  | 17          | C Right angle crimp plug   | RG-316U double braided .....           | 5.85   | 5.54   | 5.29   |
| 658857   | 132191    |  | 7           | A Bulkhead crimp jack  | RG-55/142/223/400 .....                | 4.49   | 4.38   | 4.19   |
| 658777   | 132193    |  | 18          | B Right angle crimp plug   | RG-178/196 .....                       | 4.99   | 4.79   | 4.49   |
| 658793   | 132194    |  | 19          | A Right angle crimp plug   | RG-55/142/223/400 .....                | 5.59   | 5.39   | 5.22   |
| 296403   | 132195    |  | 1           | A Straight crimp plug  | RG-55/142/223/400 .....                | 2.95   | 2.90   | 2.67   |
| 658961   | 132198    |  | 20          | C Straight crimp jack  | RG-316U double braided .....           | 4.19   | 4.05   | 3.87   |
| 659008   | 132203    |  | 21          | — Right angle bulkhead jack, PCB                                 | All 50Ω coax cables .....              | 8.75   | 7.95   | 7.17   |
| 658751   | 132231    |  | 1           | A Straight crimp plug  | RG-8X/LMR240/B7808A .....              | 4.09   | 3.70   | 3.48   |
| 658742   | 132234    |  | 1           | A Straight crimp plug  | LMR200/B7807A .....                    | 2.85   | 2.57   | 2.32   |
| 658806   | 132235    |  | 19          | A Right angle crimp plug   | LMR200/B7807A .....                    | 5.45   | 4.67   | 4.27   |
| 658814   | 132239    |  | 19          | A Right angle crimp plug   | LMR200/B7807A .....                    | 7.65   | 7.39   | 6.99   |
| 658865   | 132241    |  | 7           | A Bulkhead crimp jack  | RG-8X/LMR240/B7808A .....              | 4.55   | 3.89   | 3.55   |
| 658769   | 132298    |  | 19          | L Right angle crimp plug   | B9913/LMR400/B7810A/B8214 .....        | 6.05   | 5.19   | 4.75   |
| 659091   | 132360    |  | —           | — Terminator plug  | — .....                                | 2.29   | 2.20   | 2.11   |
| 659104   | 132361    |  | —           | — Terminator jack  | — .....                                | 2.39   | 2.30   | 2.20   |
| 659083   | 202112    |  | 22          | — Male cap   | — .....                                | 1.49   | 1.42   | 1.35   |





Interconnects

## Amphenol Connex

## SMB Connectors 50Ω

| Part No. | Prod. No. | Fig.  | Crimp Tool* | Description | Cable Groups           | 1                                      | 10     | 25     |        |
|----------|-----------|---|-------------|-------------|------------------------|--|--------|--------|--------|
| 296411   | 142176    |  | 24          | C           | Right angle cable plug | RG-316U double braided .....           | \$5.35 | \$4.58 | \$4.19 |
| 659358   | 142186    |  | 23          | B           | Straight crimp plug    | RG-174/188A/316/B7805A .....           | 4.65   | 3.98   | 3.66   |
| 659366   | 142187    |  | 23          | C           | Straight crimp plug    | RG-316U double braided .....           | 4.25   | 3.71   | 3.52   |
| 296446   | 142194    |  | 24          | B           | Right angle cable plug | RG-174/188A/316/B7805A .....           | 5.05   | 4.68   | 4.29   |
| 659340   | 142220    |  | 23          | A           | Straight crimp plug    | RG-55/142/223/400 .....                | 4.55   | 4.36   | 4.16   |
| 659374   | 142229    |  | 23          | B           | Straight crimp plug    | RG-178/196 .....                       | 4.49   | 4.07   | 3.64   |
| 296438   | 142255    |  | 23          | A           | Straight crimp plug    | RG-58/58A/58C/141/303/LMR195/B7806A .. | 4.59   | 4.38   | 4.17   |

\* Crimp tools for these connectors are on page 150

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

## Amphenol Connex

### UHF Connectors and Adapters

- Frequency range: 0-300MHz
- Working voltage: 500V
- Contact plating: nickel and silver
- Cable type: **668385**: RG58/58A/58C/141/303/LM195/B7806A
- Cable type: **668393**: RG59/62/140/210

| Part No. | Prod. No. | Fig. | Industry No. | Description  | 1      | 10     | 25     |
|----------|-----------|------|--------------|--|--------|--------|--------|
| 668377   | 182106    | 1    | PL-259       | Straight plug, solder, nickel finish, phenolic insulator | \$2.25 | \$2.11 | \$1.73 |
| 668385   | 182107    | 2    | UG-175/U     | Reducing adapter, nickel finish, for 668377              | .55    | .466   | .333   |
| 668393   | 182108    | 2    | UG-176/U     | Reducing adapter, nickel finish, for 668377              | .48    | .432   | .285   |
| 668449   | 182109    | 3    | PL-258       | Jack-to-jack adapter, nickel finish, teflon insulator    | 4.55   | 4.34   | 4.13   |



Fig. 1

Fig. 2

Fig. 3

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Lower\$\$\$

### BNC Connectors and Adapters

Quantity SAVE



Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Blue Part No. = Limited Quantity Available

| Part No. | Cross Ref. No. | Fig. | Industry No. | Description  | 1      | 10     | 25     |
|----------|----------------|------|--------------|--|--------|--------|--------|
| 355099   | 31-2           | 1    | UG-88/U      | 50Ω BNC plug, clamp, for RG-58/141/142/400 cables                                | \$3.59 | \$2.75 | \$2.55 |
| 311344   | 31-10-RFX      | 2    | —            | 50Ω BNC jack, bulkhead   | 2.05   | 1.94   | 1.84   |
| 355101   | 31-202         | 1    | UG-88C/U     | 50Ω BNC plug, clamp, for RG-55/58/141/142/223/400 cables                         | 3.95   | 3.24   | 2.39   |
| 355119   | 31-203         | 3    | UG-290A/U    | 50Ω BNC receptacle, panel mount, solder cup                                      | 5.19   | 4.22   | 3.16   |
| 355127   | 31-208-RFX     | 4    | UG-274A/U    | 50Ω BNC T-adapter, jack-plug-jack  | 3.29   | 2.81   | 1.92   |
| 355135   | 31-212         | 1    | UG-260B/U    | 50Ω BNC plug, clamp, for RG-59/62/71/140/210/302 cables                          | 3.49   | 2.67   | 2.00   |
| 363961   | 31-218         | 5    | UG-491A/U    | 50Ω BNC straight adapter, plug-plug  | 7.69   | 5.49   | 4.12   |
| 355152   | 31-219-RFX     | 6    | UG-914/U     | 50Ω BNC straight adapter, jack-jack  | 2.49   | 2.21   | 1.68   |
| 363979   | 31-220G-RFX    | 7    | —            | 50Ω BNC bulkhead adapter, jack-jack  | 2.75   | 2.33   | 1.74   |
| 355362   | 6775           | 1    | UG-959/U     | 50Ω BNC plug, clamp/solder, for RG-8/9/87A/213/214/225                           | 8.09   | 7.99   | 5.99   |
| 311319   | 68175-5RFX     | 9    | —            | 50Ω BNC 3-pc plug for crimp RG-59  | 1.05   | .96    | .72    |
| 311327   | 69475          | 1    | —            | 50Ω BNC plug, clamp for RG-174/179/187/188/316                                   | 5.85   | 4.72   | 3.54   |
| 311351   | 31-220N-RFX    | 7    | —            | 50Ω BNC bulkhead adapter, jack-jack  | 2.85   | 2.42   | 2.22   |
| 355178   | 31-221         | 8    | UG-1094/U    | 50Ω BNC bulkhead receptacle w/ grounding lug, solder cup                         | 2.05   | 1.63   | 1.22   |
| 311378   | 31-315         | 9    | —            | 50Ω BNC 3-pc cable crimp plug, for RG-174 cables                                 | 4.49   | 3.80   | 3.12   |
| 355215   | 31-315-RFX     | 10   | —            | 50Ω BNC 3-pc plug, crimp, for RG-174/U; RG-188A/U; RG-316/U cables               | 1.55   | 1.38   | 1.36   |
| 355223   | 31-318-RFX     | 11   | —            | 50Ω BNC bulkhead jack, for RG-174/188/316 cables                                 | 2.75   | 2.01   | 1.51   |
| 355240   | 31-320-RFX     | 10   | —            | 50Ω BNC 3-pc plug, crimp, for RG-58/141 cables                                   | 1.32   | 1.25   | 1.23   |
| 311394   | 31-321         | 12   | —            | 50Ω BNC 3-pc cable crimp plug, for RG-59 cables                                  | 3.25   | 2.94   | 2.71   |
| 311408   | 31-321-RFX     | 12   | —            | 50Ω BNC 3-pc cable crimp plug, for RG-59 cables                                  | 1.35   | 1.21   | 1.09   |
| 311511   | 31-70000       | 13   | —            | 75Ω 3-pc plug, crimp, RG-6 type, Belden 9248/1694A                               | 4.19   | 3.49   | 2.61   |
| 311520   | 31-70008-1000  | 13   | —            | 75Ω BNC 3-pc plug, crimp, for RG-59/62 cables, Belden 8241/8263/8279/9209 cables | 4.65   | 4.23   | 3.17   |
| 311546   | 31-71008-RFX   | 14   | —            | 75Ω BNC 3-pc plug, crimp, for RG-59/62 cables, Belden 8241/8263/8279/9209 cables | 1.55   | 1.31   | 1.18   |
| 311554   | 31-71013-RFX   | 15   | —            | 75Ω BNC plug, crimp, for RG-179/187 cables                                       | 1.75   | 1.60   | 1.50   |
| 311562   | 31-71014-RFX   | 16   | —            | 75Ω BNC jack, crimp, for RG-179/187 cables                                       | 1.89   | 1.62   | 1.41   |
| 311572   | 31-71032       | 17   | —            | 75Ω BNC 3-pc plug, crimp, for Belden 8281/88281 cables                           | 3.05   | 2.62   | 2.08   |
| 311589   | 31-71033       | 18   | —            | 75Ω BNC 3-pc plug, crimp, for Belden 8218 cables                                 | 3.25   | 3.19   | 3.00   |

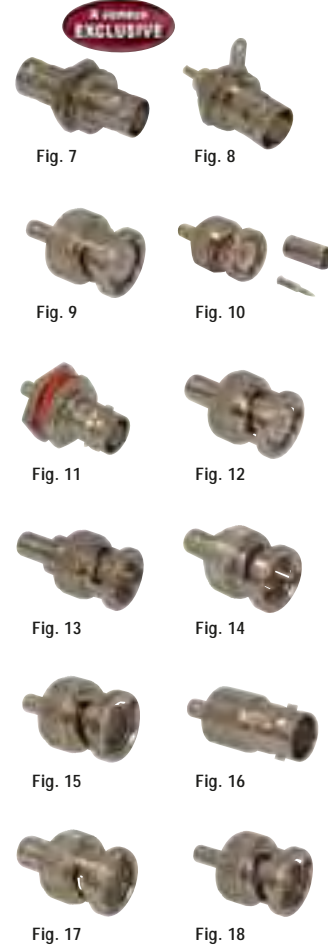


Fig. 9

Fig. 10

Fig. 11

Fig. 12

Fig. 13

Fig. 14

Fig. 15

Fig. 16

Fig. 17

Fig. 18

JAMECO ValuePro

### TNC Type Connector

| Part No. | Cross Ref. No. | Fig. | Industry No. | Description                                     | 1      | 10     | 25     |
|----------|----------------|------|--------------|---|--------|--------|--------|
| 311415   | 31-2367-RFX    | 19   | —            | 50Ω TNC plug, crimp-crimp, for RG-58/141 cables | \$1.35 | \$1.29 | \$1.17 |

Fig. 19

JAMECO ValuePro

### Type N Connectors

| Part No. | Cross Ref. No. | Fig. | Industry No. | Description   | 1      | 10     | 25     |
|----------|----------------|------|--------------|---|--------|--------|--------|
| 311600   | 82-97-RFX      | 20   | UG-58A/U     | 50Ω Type N receptacle jack, panel mount               | \$3.25 | \$2.59 | \$2.10 |
| 311619   | 82-202-1006    | 21   | —            | 50Ω Type N clamp plugs, for B9913/Amp TWB 4001 cables | 6.59   | 4.97   | 4.07   |

Fig. 20

Fig. 21

JAMECO ValuePro

### SMA Connectors

| Part No. | Cross Ref. No. | Fig. | Industry No. | Description   | 1      | 10     | 25     |
|----------|----------------|------|--------------|---|--------|--------|--------|
| 355283   | 901-143-6RFX   | 22   | —            | 50Ω SMA jack, right angle, PC mount                           | \$4.35 | \$3.85 | \$3.60 |
| 355303   | 901-9877-RFX   | 23   | —            | 50Ω SMA plug, crimp, for RG-174/U; RG-188A/U; RG-316/U cables | 2.55   | 2.21   | 1.80   |

Fig. 22

Fig. 23

JAMECO ValuePro

### MMCX Connector

| Part No. | Cross Ref. No. | Fig. | Industry No. | Description  | 1      | 10     | 25     |
|----------|----------------|------|--------------|--|--------|--------|--------|
| 311686   | 908-43200      | 24   | —            | 50Ω MMCX right angle plug, crimp for RG-178/U cables | \$6.35 | \$5.15 | \$3.86 |
| 311693   | 904-43300      | 24   | —            | 50Ω MMCX right angle plug, crimp for RG-174/188/316  | 6.65   | 5.50   | 4.12   |

Fig. 24

We carry major manufacturers – call for OEM PRICING.

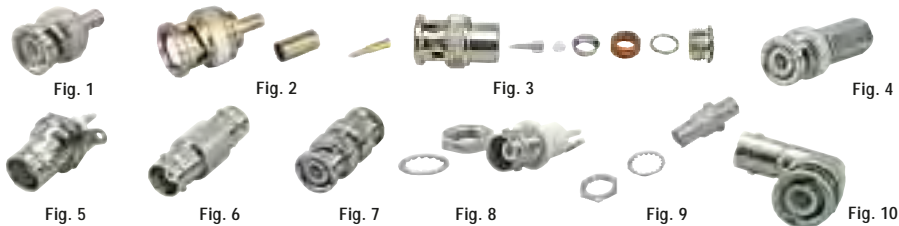
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A JAMECO EXCLUSIVE

## BNC Coax Connectors

- Miniature, lightweight units designed to operate up to 11GHz and typically yield low reflection up to 4GHz

Quantity SAVE



| Part No. | Fig. | Description                             | 1      | 10     | 100    | 500         |
|----------|------|---|--------|--------|--------|-------------|
| 71459    | 1    | BNC male terminator (50Ω)               | \$1.55 | \$1.15 | \$0.99 | \$0.89      |
| 71790    | 1    | BNC male terminator (75Ω)               | 1.35   | 1.09   | .89    | .73         |
| 135618   | 2    | BNC male with pin and ferrule (RG6)     | .98    | .76    | .495   | .429        |
| 71482    | 2    | BNC male with pin and ferrule (RG58)    | 1.65   | 1.49   | 1.35   | 1.25        |
| 71271    | 2    | BNC male with pin and ferrule (RG59/62) | .81    | .66    | .59    | .54         |
| 112109   | 2    | BNC male with pin and ferrule (RG174)   | 1.59   | 1.45   | 1.29   | 1.15        |
| 119394   | 3    | BNC male clamp-on (RG59/62)             | 1.39   | 1.25   | 1.15   | <u>0.86</u> |
| 71781    | 4    | BNC male twist-on (RG59/62)             | 1.09   | .99    | .89    | .79         |
| 71590    | 5    | BNC female panel mount (UG-1094A)       | 1.49   | 1.35   | 1.25   | 1.09        |
| 71909    | 6    | BNC female/female coupler (UG-914)      | 1.29   | .99    | .85    | .74         |
| 127343   | 7    | BNC male/male coupler (UG-491B/U)       | 1.99   | 1.79   | 1.39   | 1.29        |
| 111561   | 8    | BNC female isolated bulkhead            | 2.29   | 1.99   | 1.79   | 1.59        |
| 148224   | 9    | BNC female bulkhead feed-thru           | 1.99   | 1.79   | 1.59   | 1.39        |
| 148232   | 9    | BNC female isolated bulkhead feed-thru  | 2.49   | 2.25   | 1.79   | <u>1.35</u> |
| 127351   | 10   | BNC M-F right angle (DG-306B/O)         | 2.49   | 2.19   | 1.85   | 1.59        |
| 160929   | 11   | BNC female, crimp type (RG58)           | 1.25   | 1.09   | .99    | .89         |
| 161922   | 11   | BNC female, crimp type (RG174)          | 1.49   | 1.35   | 1.19   | 1.05        |
| 174290   | 12   | BNC female chassis mount                | 1.19   | .98    | .88    | .79         |
| 174297   | 13   | BNC female twist-on bulkhead            | 2.25   | 2.02   | 1.62   | <u>1.22</u> |
| 174255   | 14   | BNC male to F connector female          | 1.99   | 1.59   | 1.45   | 1.19        |

JAMECO ValuePro

## BNC PCB Connectors

A JAMECO EXCLUSIVE

- Maintains matching impedance at 50Ω & 75Ω
- Ideal for LAN cards & precision video

| Part No. | Description                       | Length (L) | 1      | 10     | 100    | 500         |
|----------|-----------------------------------|------------|--------|--------|--------|-------------|
| 146511   | BNC female R/A plastic insulation | 1.37"      | \$1.95 | \$1.75 | \$1.49 | \$1.25      |
| 161656   | BNC female right-angle metal      | .861"      | 2.29   | 1.99   | 1.79   | <u>1.34</u> |

JAMECO ValuePro

## BNC Adapters

A JAMECO EXCLUSIVE

- Silver-plated • General purpose coax T-adapter • ThinNet/Ethernet LAN adapter



| Part No. | Description                              | 1      | 10     | 100    | 500         |
|----------|--|--------|--------|--------|-------------|
| 118594   | Male to female/female T-adapter          | \$2.39 | \$2.15 | \$1.75 | \$1.25      |
| 72629    | Female to female/female T-adapter        | 2.49   | 2.25   | 1.99   | 1.69        |
| 207087   | Female to male/female T-adapter          | 9.55   | 8.59   | 7.16   | <u>5.37</u> |
| 100597   | Male to female/female T-adapter (180°)   | 5.99   | 5.39   | 4.85   | 3.99        |
| 207116   | Male to female/female/female T-adapter   | 7.19   | 6.45   | 5.79   | 4.95        |
| 117462   | Male to female/female F-adapter (90°)    | 4.29   | 3.89   | 3.49   | 2.99        |
| 207168   | RCA female to BNC female                 | 1.99   | 1.79   | 1.59   | 1.39        |
| 114788   | RCA female to BNC male adapter           | 1.35   | 1.05   | .99    | .98         |
| 207175   | RCA male to BNC male                     | 1.55   | 1.36   | 1.22   | <u>.92</u>  |
| 114753   | RCA male to BNC female adapter           | 1.59   | 1.45   | 1.29   | 1.09        |
| 114770   | BNC female to "F" connector male adapter | 1.79   | 1.59   | 1.39   | 1.19        |
| 207142   | 3.5mm mono male to BNC female            | 1.69   | 1.49   | 1.27   | .95         |

JAMECO ValuePro

## BNC Male Coax Cables

| Part No. | Description   | 1      | 10     | 50     | 100    |
|----------|---------------|--------|--------|--------|--------|
| 176794   | 3' BNC to BNC | \$3.95 | \$3.55 | \$3.19 | \$2.89 |
| 176815   | 6' BNC to BNC | 4.95   | 4.49   | 4.05   | 3.35   |

## RG58/U 50Ω Cables

Quantity SAVE

- For Ethernet networks, oscilloscopes

| Part No. | Cross Ref. No. | Length (ft.) | 1      | 10     | 50     | 100         |
|----------|----------------|--------------|--------|--------|--------|-------------|
| 181308   | CRG58-1RR      | 1            | \$3.65 | \$3.29 | \$2.95 | \$2.75      |
| 102315   | CRG58-1        | 1.5          | 3.99   | 3.39   | 2.87   | 2.15        |
| 256743   | CBB-224-24     | 2            | 4.15   | 3.69   | 3.32   | 2.99        |
| 11404    | CRG58-3        | 3            | 4.29   | 3.89   | 3.49   | 3.15        |
| 102331   | CRG58-6        | 6            | 4.39   | 3.99   | 3.59   | 3.19        |
| 152311   | RG58MF-6       | 6            | 2.95   | 2.59   | 2.25   | 1.95        |
| 180822   | CRG58-10       | 10           | 4.49   | 3.99   | 3.20   | <u>2.40</u> |
| 102350   | CRG58-12       | 12           | 4.95   | 4.49   | 3.99   | 3.39        |
| 169818   | CRG58-15       | 15           | 5.95   | 5.36   | 4.66   | 4.34        |
| 102381   | CRG58-100      | 100          | 13.49  | 12.14  | 9.71   | 7.28        |

\*152311 has male &amp; female coax Blue Part No. = Limited Quantity

## Other Manufacturers

|        |          |    |        |        |        |        |
|--------|----------|----|--------|--------|--------|--------|
| 102357 | CRG58-25 | 25 | \$6.49 | \$5.84 | \$5.26 | \$4.75 |
| 102365 | CRG58-50 | 50 | 9.49   | 8.54   | 6.83   | 5.12   |

## RG59/U 75Ω Cables

- For CATV and video patch cords

| Part No. | Cross Ref. No. | Length (ft.) | 1      | 10     | 50     | 100         |
|----------|----------------|--------------|--------|--------|--------|-------------|
| 86471    | CRG59-1        | 1.5          | \$3.49 | \$3.19 | \$2.99 | \$2.29      |
| 85542    | CRG59-6        | 6            | 3.75   | 3.38   | 3.04   | <u>2.28</u> |
| 102373   | CRG59-12       | 12           | 5.49   | 4.95   | 4.45   | 3.99        |
| 262730   | EBC-525        | 25           | 9.95   | 8.96   | 7.17   | <u>5.38</u> |
| 262748   | EBC-550        | 50           | 17.05  | 16.25  | 15.45  | 14.69       |
| 262764   | EBC-510        | 100          | 30.39  | 28.89  | 27.45  | 25.99       |

## RG174/U 50Ω Cables

- For Ethernet networks, oscilloscopes

Blue Part No. = Limited Quantity Available

| Part No. | Cross Ref. No. | Length (ft.) | 1      | 10     | 50     | 100    |
|----------|----------------|--------------|--------|--------|--------|--------|
| 111472   | RG174U3        | 3            | \$3.85 | \$3.49 | \$3.15 | \$2.85 |
| 111481   | RG174U6        | 6            | 4.59   | 4.15   | 3.75   | 3.35   |

## Hex Crimp Tools

- Use with RG-58 and RG-59 connectors with up to a 3/8" ferrule
- 261745: 1.7mm standard crimp for crimping center conductor on BNC & TNC connectors; up to 3/8" ferrule
- 261737: Ferrules up to 1/2"

261745

**SALE**

| Part No. | Description           | 1       | 5       |
|----------|-----------------------|---------|---------|
| 261745   | Hex crimp tool (3/8") | \$19.75 | \$18.55 |
| 261737   | Hex crimp tool (1/2") | 18.49   | 16.65   |

## Free Technical Support

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 RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

Color Code Legend

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155



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## 75Ω "F" Connectors, Adapters and Terminators



| Part No. | Ref. No. | Description                            | 1      | 10     | 50     | 100    |
|----------|----------|--|--------|--------|--------|--------|
| 291531   | 200-028  | Perma-seal, RG-6 coax                  | \$ .69 | \$ .59 | \$ .55 | \$ .49 |
| 289924   | 200-038  | RG-6 crimp-on weatherproof seal, brass | .69    | .59    | .49    | .39    |
| 309657   | 200-045  | RCA female to F male adapter           | 1.75   | 1.35   | .97    | .87    |
| 291725   | 200-051  | F-jack to jack (gold)                  | .95    | .85    | .79    | .75    |
| 295371   | 200-053  | F-panel mount jack to jack (nickel)    | .65    | .55    | .475   | .38    |
| 295398   | 200-103  | F-jack to push-on plug (nickel)        | .85    | .69    | .63    | .523   |
| 295380   | 200-107  | F-R/A jack to plug (nickel)            | 1.59   | 1.39   | 1.16   | .95    |
| 295531   | 200-117  | F-jack to 3.5mm mono plug (nickel)     | 1.65   | 1.35   | 1.13   | .93    |

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## SMA Connectors, Adapters and Couplers

Quantity SAVE



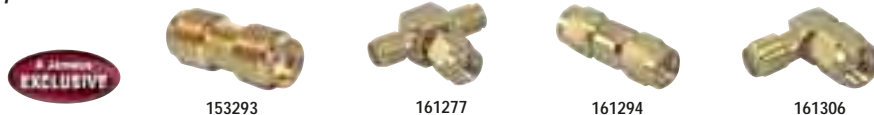
- Application: cellular phone, data communication, instrumentation and video
- Frequency range: 0-18GHz
- Temperature range: -65°C to 165°C
- 50Ω impedance
- Plating: gold and nickel

### Connectors

| Part No. | Description                                      | Cable Type | Plated | 1      | 10     | 50     | 100    |
|----------|--|------------|--------|--------|--------|--------|--------|
| 157972   | SMA 50Ω crimp type male plug connector           | RG-58      | Gold   | \$3.79 | \$3.49 | \$3.09 | \$2.89 |
| 153365   | SMA 50Ω crimp type male plug connector           | RG-174     | Gold   | 4.39   | 3.95   | 3.55   | 3.19   |
| 145381   | SMA straight female PCB mount connector, 4 legs  | —          | Gold   | 5.25   | 4.75   | 4.25   | 3.49   |
| 145373   | SMA 90° female PCB mount connector, 4 legs       | —          | Gold   | 7.39   | 6.65   | 5.32   | 3.99   |
| 153286   | SMA bulkhead solder female w/ washer, rear mount | RG-58/174  | Gold   | 3.49   | 3.15   | 2.85   | 2.59   |
| 159530   | SMA female panel mount conn., 4 mounting holes   | RG-58/174  | Gold   | 2.95   | 2.65   | 2.35   | 2.10   |
| 160022   | SMA female panel mount conn., 2 mounting holes   | RG-58/174  | Gold   | 3.99   | 3.59   | 3.25   | 2.95   |
| 160013   | Panel mount feed thru connector female – female  | —          | Nickel | 4.99   | 4.49   | 3.99   | 3.49   |

\*159530/160022: Solder cup

### Couplers



| Part No. | Description                                | Plated | 1      | 10     | 50     | 100    |
|----------|--|--------|--------|--------|--------|--------|
| 153293   | SMA straight coupler female – jack-to-jack | Gold   | \$3.85 | \$3.39 | \$2.19 | \$1.79 |
| 161277   | SMA 3-way coupler, 1 male – 2 female       | Gold   | 3.49   | 3.15   | 2.85   | 2.55   |
| 161294   | SMA straight coupler male – male           | Gold   | 3.65   | 3.29   | 2.95   | 2.75   |
| 161306   | SMA right angle coupler male – female      | Gold   | 4.99   | 4.49   | 3.99   | 3.65   |

### SMA to BNC Adapters



| Part No. | Description                      | Plated | 1      | 10     | 50     | 100    |
|----------|----------------------------------|--------|--------|--------|--------|--------|
| 153453   | SMA female to BNC male adapter   | Nickel | \$2.49 | \$2.25 | \$1.99 | \$1.79 |
| 159468   | SMA female to BNC female adapter | Nickel | 2.69   | 2.45   | 2.19   | 1.99   |
| 153593   | SMA male to BNC male adapter     | Nickel | 3.99   | 3.59   | 3.19   | 2.89   |
| 159476   | SMA male to BNC female adapter   | Nickel | 2.99   | 2.69   | 2.45   | 2.19   |

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## SMB Connectors



- For use with RG-174 coax
- 50Ω crimp type
- Gold plated
- Use with crimping tool P/N 114535, pg 292

Quantity SAVE

| Part No. | Description         | 1      | 10     | 50     |
|----------|---------------------|--------|--------|--------|
| 172363   | Bulkhead crimp jack | \$3.49 | \$2.95 | \$2.21 |
| 172371   | Cable crimp plug    | 4.29   | 3.65   | 2.74   |

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## SMB PCB Connector

- 0-4GHz electrical performance
- Gold plated brass
- Insulation: teflon
- Contact: beryllium copper



| Part No. | Description     | 1      | 10     | 50     |
|----------|-----------------|--------|--------|--------|
| 167312   | Right angle PCB | \$4.45 | \$3.89 | \$3.25 |

Cinch

## SMA Connectors

- Jacks and plugs
- Straight
- Right angle
- Edgemount



These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

See Complete Cinch RF Connector Offering at  
[www.Jameco.com/Prod/CinchRF](http://www.Jameco.com/Prod/CinchRF)

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## SMA/SMB 50Ω Coax Cables

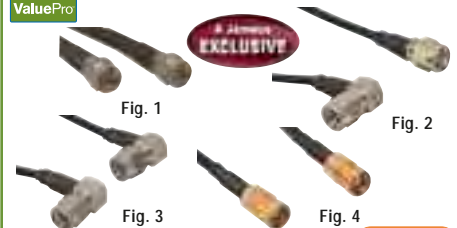


Fig. 1: SMA male to SMA male  
Fig. 2: SMA male to SMA right angle male  
Fig. 3: SMA right angle male to SMA right angle male  
Fig. 4: SMB plug to SMB plug

Blue Part No. = Limited Quantity Available

| Part No. | Cable  | Fig. | Lgth (ft.) | 1      | 10     | 50     |
|----------|--------|------|------------|--------|--------|--------|
| 159370   | RG-58  | 1    | 2          | \$4.49 | \$3.99 | \$3.49 |
| 159397   | RG-58  | 1    | 6          | 5.49   | 4.89   | 4.19   |
| 169800   | RG-174 | 1    | 0.5        | 5.59   | 4.99   | 4.55   |
| 163855   | RG-174 | 1    | 1          | 4.49   | 3.95   | 3.39   |
| 153382   | RG-174 | 1    | 2          | 4.95   | 4.29   | 3.39   |
| 153391   | RG-174 | 1    | 4          | 5.49   | 4.75   | 4.29   |
| 159451   | RG-174 | 1    | 6          | 6.79   | 6.15   | 5.55   |
| 175127   | RG-174 | 2    | 0.5        | 4.49   | 3.95   | 3.49   |
| 175134   | RG-174 | 2    | 1          | 4.95   | 4.25   | 3.75   |
| 175143   | RG-174 | 3    | 0.5        | 5.75   | 5.25   | 4.49   |
| 175152   | RG-174 | 3    | 1          | 6.25   | 5.75   | 4.75   |
| 175169   | RG-174 | 4    | 0.5        | 4.29   | 3.65   | 2.87   |
| 175178   | RG-174 | 4    | 1          | 5.29   | 4.79   | 3.95   |

Lower \$\$\$

Crimping Tools  
on page 292





## BEAU Terminal Blocks

- 0.375" double row
- Current rating: UL rated 15A @ 300V, #14AWG
- Wire AWG range: 12 – 24AWG
- Insulation resistance: >5000MΩ
- Terminal: brass, nickel plated
- Dielectric withstanding voltage: 7500VDC
- Insulator: thermoplastic, UL94V-0
- Screws: #6-32 steel, zinc chromate plate



659438

| Part No. | Product No. | Beau No. | Pos.    | 1     | 25    | 50    |
|----------|-------------|----------|---------|-------|-------|-------|
| 659391   | 38770-0102  | 77002    | 2 ...   | \$.74 | \$.65 | \$.60 |
| 659403   | 38770-0103  | 77003    | 3 ..... | .80   | .74   | .65   |
| 659411   | 38770-0104  | 77004    | 4 ..... | .98   | .89   | .71   |
| 659420   | 38770-0105  | 77005    | 5 ...   | 1.21  | 1.16  | .92   |
| 659438   | 38770-0106  | 77006    | 6 ...   | 1.69  | 1.43  | 1.41  |
| 659446   | 38770-0107  | 77007    | 7 ...   | 1.59  | 1.43  | 1.15  |
| 659454   | 38770-0108  | 77008    | 8 ...   | 1.89  | 1.71  | 1.37  |
| 659462   | 38770-0109  | 77009    | 9 ...   | 2.65  | 2.43  | 2.29  |
| 659471   | 38770-0110  | 77010    | 10 ...  | 2.25  | 2.05  | 1.64  |
| 659489   | 38770-0112  | 77012    | 12 ...  | 2.45  | 2.33  | 1.86  |
| 659497   | 38770-0114  | 77014    | 14 ...  | 2.99  | 2.76  | 2.20  |
| 659500   | 38770-0115  | 77015    | 15 ...  | 2.85  | 2.69  | 2.39  |
| 659518   | 38770-0116  | 77016    | 16 ...  | 3.39  | 3.12  | 2.49  |
| 659526   | 38770-0118  | 77018    | 18 ...  | 4.59  | 4.37  | 4.16  |
| 659534   | 38770-0120  | 77020    | 20 ...  | 3.95  | 3.87  | 3.09  |
| 659542   | 38770-0122  | 77022    | 22 ...  | 4.45  | 4.10  | 3.27  |
| 659551   | 38770-0124  | 77024    | 24 ...  | 4.65  | 4.56  | 3.64  |
| 659569   | 38770-0130  | 77030    | 30 ...  | 6.15  | 5.64  | 4.49  |



## Double Row Barrier Blocks

- Voltage rating: 250VAC RMS max.
- Eyelet material: brass with nickel plating
- Insulation: molded mono block, general purpose phenolic, black, UL94V-1
- Screw material: steel w/ nickel over copper flash plating
- Solder terminal material: brass w/ electro-tin plating



231378

### 140 Series 15A

- 3750-watts/terminal max.
- 16 AWG wire max.
- Size: 0.88"W x 0.41"H
- Screw: 5-40 x 3/16"
- Density: 0.375"

| Part No. | Prod. No. | Pos. | Length | 1     | 10    | 100   |
|----------|-----------|------|--------|-------|-------|-------|
| 230973   | 2-140     | 2    | 1.41"  | \$.99 | \$.89 | \$.74 |
| 230981   | 3-140     | 3    | 1.78"  | 1.25  | 1.11  | .83   |
| 230990   | 4-140     | 4    | 2.16"  | 1.45  | 1.29  | 1.05  |
| 231001   | 5-140     | 5    | 2.53"  | 1.59  | 1.44  | 1.18  |
| 231010   | 6-140     | 6    | 2.91"  | 1.99  | 1.79  | 1.48  |
| 231028   | 7-140     | 7    | 3.28"  | 2.19  | 1.95  | 1.59  |
| 231036   | 8-140     | 8    | 3.66"  | 2.49  | 2.24  | 1.83  |
| 231052   | 10-140    | 10   | 4.41"  | 3.25  | 2.89  | 2.35  |
| 231061   | 12-140    | 12   | 5.16"  | 3.55  | 3.15  | 2.59  |

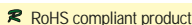
### 141 Series 20A

- 5000-watts/terminal max.
- 14 AWG wire max.
- Size: 1.13"W x 0.5"H
- Screw: 6-32 x 1/4"
- Density: 0.438"

| Part No. | Prod. No. | Pos. | Length | 1     | 10    | 100   |
|----------|-----------|------|--------|-------|-------|-------|
| 231351   | 2-141     | 2    | 1.63"  | \$.99 | \$.85 | \$.72 |
| 231378   | 4-141     | 4    | 2.50"  | 1.79  | 1.59  | 1.25  |
| 231394   | 6-141     | 6    | 3.38"  | 1.95  | 1.75  | 1.42  |
| 231415   | 8-141     | 8    | 4.25"  | 2.79  | 2.35  | 1.94  |
| 231431   | 10-141    | 10   | 5.13"  | 3.19  | 2.79  | 2.29  |
| 231440   | 12-141    | 12   | 6.00"  | 3.59  | 3.29  | 2.69  |

To Find Additional Cinch Double Barrier Blocks, Visit [www.Jameco.com/Prod/Cinch2RBlocks](http://www.Jameco.com/Prod/Cinch2RBlocks)

◆ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.



◆ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



## Terminal Blocks and Header

• For detailed specifications, please see our website at [www.Jameco.com](http://www.Jameco.com)

• 164814: Male header (.197") for use with 164793 and 164806

◆ Blue Part No. = Limited Quantity Available



Fig. 1 (99398)



Fig. 2 (160784)

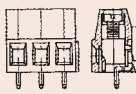


Fig. 3 (161067)

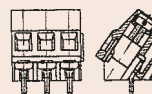


Fig. 4 (189675)



Fig. 5 (164793)



Fig. 6 (164806)



Fig. 7 (249084)

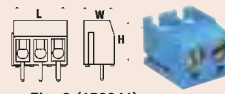


Fig. 8 (152346)

Fig. 9 (164814) use w/ Fig. 5 & 6

| Part No. | Mfg.   | Product No. | Fig. | Term. | Terminal Spacing | 1     | 10    | 100   | 1000  |
|----------|--------|-------------|------|-------|------------------|-------|-------|-------|-------|
| 99427    | Dinkle | DT128/2     | 1    | 2     | 0.197"/5mm       | \$.72 | \$.55 | \$.44 | \$.40 |
| 99398    | Dinkle | DT128V3P    | 1    | 3     | 0.197"/5mm       | .99   | .89   | .79   | .59   |
| 160784   | Dinkle | EK500V-02P  | 2    | 2     | 0.197"/5mm       | .65   | .55   | .45   | .39   |
| 160793   | Dinkle | EK500V-03P  | 2    | 3     | 0.197"/5mm       | .95   | .85   | .75   | .69   |
| 161067   | Dinkle | EK500A-02P  | 3    | 2     | 0.197"/5mm       | .75   | .65   | .49   | .39   |
| 161058   | Dinkle | EK500A-03P  | 3    | 3     | 0.197"/5mm       | .95   | .85   | .75   | .69   |
| 189675   | OST    | EDC500/2DS  | 4    | 2     | 0.197"/5mm       | .79   | .71   | .64   | .58   |
| 189667   | OST    | EDC500/3DS  | 4    | 3     | 0.197"/5mm       | .89   | .80   | .72   | .61   |
| 164793   | OST    | EDC130/2DS  | 5    | 2     | 0.197"/5mm       | .59   | .53   | .47   | .42   |
| 164806   | OST    | EDC130/3DS  | 6    | 3     | 0.197"/5mm       | .84   | .76   | .62   | .54   |
| 249084   | OST    | EDZ750/3    | 7    | 3     | 0.200"/5.08mm    | 1.95  | 1.75  | 1.56  | 1.44  |
| 152346   | OST    | EDC120/2DS  | 8    | 2     | 0.200"/5.08mm    | .65   | .55   | .45   | .39   |
| 152354   | OST    | EDC120/3DS  | 8    | 3     | 0.200"/5.08mm    | .47   | .44   | .39   | .31   |
| 164814   | OST    | EDSTL130/24 | 9    | 24    | 0.197"/5mm       | 2.19  | 1.97  | 1.80  | 1.36  |



## Terminal Block Jumper

For connecting between adjacent terminals or alternate terminals. Use with Series 140 terminal blocks, left.

- 2-position • Brass with nickel plating



| Part No. | Product No. | 1     | 25     | 50     |
|----------|-------------|-------|--------|--------|
| 659382   | 140J-1      | \$.22 | \$.196 | \$.182 |



## Plug Buttons

- Nickel plated steel
- Spring tension prongs



| Part No. | Prod. No. | Hole Dia. | Cup Dia. | 1     | 25    |
|----------|-----------|-----------|----------|-------|-------|
| 448622   | 41B       | 0.375"    | 0.500"   | \$.84 | \$.67 |
| 448614   | 41C       | 0.500"    | 0.656"   | .67   | .532  |
| 448606   | 41V       | 1.00"     | 1.156"   | 3.59  | 2.85  |



## Barrier/Terminal Blocks

### Terminal Blocks

- Polarization keys

### Europa Terminal Blocks

- Modular design
- Tubular contacts
- Wire protectors

### Dual/Tri Barrier Strips

- Fast wiring
- Interrupted thread design

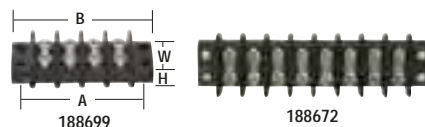
### Interface Modules

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See Complete Buchanan Terminal/Barrier Blocks Offering at [www.Jameco.com/Prod/BuchananBlocks](http://www.Jameco.com/Prod/BuchananBlocks)



## KULKA® 601 GP Series Double Row Terminal Blocks



- Base: general purpose phenolic; 150°C
- Screws: #6-32, binder head, phillips-slot
- Terminals: brass plated • Width (W): 1.12"
- .437" (11 mm) centers • Height (H): .50"
- 1100Vrms; 20A ratings; for 14-16 AWG wires
- Open block design
- UL/CSA/CE approved



◆ Blue Part No. = Limited Quantity Available

| Part Number | Product Number | Poles | Dimensions A" B" | 1      | 10     | 50     |
|-------------|----------------|-------|------------------|--------|--------|--------|
| 188699      | 601GP4         | 4     | 2.19 2.50        | \$1.69 | \$1.49 | \$1.35 |
| 188681      | 601GP6         | 6     | 3.06 3.38        | 2.65   | 2.40   | 2.03   |
| 188672      | 601GP8         | 8     | 3.94 4.25        | 2.95   | 2.75   | 2.49   |
| 188664      | 601GP10        | 10    | 4.81 5.13        | 5.05   | 4.70   | 4.23   |
| 188701      | 601GP12        | 12    | 5.69 6.00        | 5.55   | 5.09   | 4.07   |

## 30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 322.



## Metric Double Row Terminal Blocks

- Body material: black thermoplastic (UL94V-0)
- 12-18 AWG
- Terminals: brass tin plated
- Screws: steel nickel plated
- Insulation withstanding voltage: 2000VAC min.
- Insulation resistance: 1000MΩ or more at 500VDC

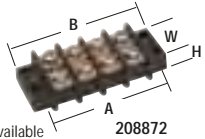
Lower \$\$\$ Quantity SAVE



## 10A @ 600V

- Screw size: M3.0
- Width (W): 19.5mm
- Height (H): 11.9mm

Blue Part No. = Limited Quantity Available



| Part Number | Cross Ref. No. | Poles | Dimensions A B | 1      | 10     | 50     |
|-------------|----------------|-------|----------------|--------|--------|--------|
| 208856      | GGE-10-4P      | 4     | 47.5 55        | \$0.75 | \$0.64 | \$0.59 |
| 208864      | GGE-10-6P      | 6     | 64.5 74        | 1.05   | 1.00   | .97    |
| 208872      | GGE-10-8P      | 8     | 95 102.5       | 1.69   | 1.59   | 1.49   |
| 208899      | GGE-10-10P     | 10    | 104.5 112      | 2.39   | 2.15   | 1.62   |
| 208882      | GGE-10-12P     | 12    | 123.5 131      | 2.79   | 2.49   | 2.25   |

## 20A @ 600V

- Screw size: M3.5
- Width (W): 22.0mm
- Height (H): 13.2mm



| Part Number | Cross Ref. No. | Poles | Dimensions A B | 1      | 10     | 50     |
|-------------|----------------|-------|----------------|--------|--------|--------|
| 207546      | GGE-20-6P      | 6     | 76.3 85.3      | \$1.99 | \$1.79 | \$1.59 |
| 207554      | GGE-20-8P      | 8     | 98.1 107.1     | 2.59   | 2.35   | 1.76   |
| 207563      | GGE-20-10P     | 10    | 119.9 128.9    | 3.29   | 2.99   | 2.69   |
| 207572      | GGE-20-12P     | 12    | 141.7 150.7    | 3.59   | 3.19   | 2.79   |



## European Terminal Blocks

- Number of poles: 12
- 1.2mm raised base
- Working temp.: 230°F (110°C)
- Voltage: 600V
- Terminal insert: brass metal alloy, nickel plated
- Material: Polyamide 66 (nylon 66), UL94V-2, natural
- Wire protector: stainless steel spring
- Screws: zinc plated, yellow chromed

Quantity SAVE

215011



| Part No. | Cross Ref. | Amps | AWG   | 1      | 10     | 100    |
|----------|------------|------|-------|--------|--------|--------|
| 215011   | PA8H       | 20A  | 12-22 | \$1.79 | \$1.59 | \$1.29 |
| 215028   | PA10H      | 30A  | 10-22 | 1.89   | 1.69   | 1.39   |
| 215036   | PA12H      | 35A  | 10-22 | 2.59   | 2.35   | 1.50   |



## DIN Rail-Mounted Terminal Block &amp; DIN Rail

Foot snaps onto standard DIN and DIN 2 rails. Terminals are positively retained on rails, but can be removed without disturbing adjacent units.

- Molded thermoplastic
- Spacing: 5.06mm (.199")
- UL rated voltage and current: 600V @ 20A
- 14-22 AWG



| Part No. | Product No. | Type       | 1      | 10     | 100    |
|----------|-------------|------------|--------|--------|--------|
| 237083   | 41296.2     | SR2.5      | \$0.89 | \$0.79 | \$0.69 |
| 248736   | 2094.0      | TS35 x 7.5 | 6.79   | 5.45   | 4.10   |



♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product

♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



## Terminals



Panduit terminals are designed for fast, consistent installation and lasting reliability.

## 489256: High Temp. Non-Insulated Ring Terminal

- 600V; 343°C (650°F) operating temperature
- Brazed seam assures a reliable crimp
- Internally beveled for easy wire insertion
- Extended length is easier to crimp and assures good quality wire contact

## 489361/489379/489387:

## Nylon Insulated Funnel Entry Ring Terminal

- 600V; 105°C (221°F) operating temperature
- Insulation may be crimped to the wire insulation to add strain relief and resistance to pull-out
- Metal insulation crimp provides double crimp with insulation grip sleeve for high vibration or conductor strain environments
- Funnel entry speeds wire insertion

## 489221: Supra-Grip™ Nylon Fully Insulated Female Disconnect

- Integrated metal insulation grip to meet double crimp requirements
- Color coded insulation
- Internal wire barrel serrations for maximum wire tensile strength
- Funnel entry
- Minimum order 1000 pieces

| Part No. | Product No.   | AWG/Blade   | 1000    | 5000    |
|----------|---------------|-------------|---------|---------|
| 489256   | P14-6RHT6-M   | 16-14/#6    | \$0.117 | \$0.111 |
| 489361   | PNF10-10R-D   | 12-10/#10   | .311    | .295    |
| 489379   | PNF14-6R-C    | 16-14/#6    | .63     | .56     |
| 489387   | PNF18-10R-M   | 22-18/#10   | .23     | .22     |
| 489221   | DNG14-250FB-M | 16-14/.250" | .181    | .172    |



## Solderless Terminal Crimping Tool

- Crimps solderless terminals: 18-22 AWG red, 14-16 AWG blue and 10-12 AWG yellow
- Size: 9.0"L x 2.0"W



| Part No. | Product No. | 1       | 10      | 25      |
|----------|-------------|---------|---------|---------|
| 72996    | HT303       | \$18.95 | \$16.11 | \$12.08 |



## Electrical Connector Kits



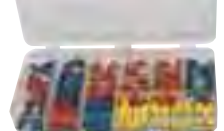
| Part No. | Description               | 1       | 10      | 25      |
|----------|---------------------------|---------|---------|---------|
| 651954   | 79 pc. electrical kit     | \$17.25 | \$15.29 | \$13.73 |
| 651989   | 28 pc. 12-10AWG term. kit | 8.99    | 7.99    | 7.19    |
| 651997   | Asst. quick connect kit   | 7.99    | 7.16    | 6.43    |
| 652009   | Asst. splice connect kit  | 8.99    | 7.99    | 7.19    |
| 652041   | Heatshrink splice kit     | 14.89   | 13.19   | 11.85   |

## 171-Pc. Solderless Terminal Kit

| Qty. | Description | Wire Gauge | Blade Size | Qty. | Description | Wire Gauge | Blade Size |
|------|-------------|------------|------------|------|-------------|------------|------------|
| 10   | Male spade  | 22-16      | 1/4"       | 10   | Ring term.  | 16-14      | #10        |
| 10   | Male spade  | 16-14      | 1/4"       | 5    | Ring term.  | 12-10      | #10        |
| 10   | Fem. spade  | 22-16      | 1/4"       | 5    | Ring term.  | 12-10      | #14        |
| 10   | Fem. spade  | 16-14      | 1/4"       | 10   | Spade term. | 16-22      | #6         |
| 10   | Ring term.  | 22-16      | #6         | 10   | Spade term. | 16-22      | #8         |
| 10   | Ring term.  | 22-16      | #8         | 10   | Spade term. | 16-14      | #10        |
| 10   | Ring term.  | 16-14      | #10        | 10   | Butt conn.  | 16-22      | -          |
| 15   | Ring term.  | 16-14      | #6         | 10   | Butt conn.  | 16-14      | -          |
| 10   | Ring term.  | 16-14      | #8         | 5    | Butt conn.  | 12-10      | -          |

170 Terminals and Connectors!

- Clear, hinged plastic box
- Use crimping tool P/N 72996, below left



| Part No. | Description  | 1      | 10     | 25     |
|----------|--------------|--------|--------|--------|
| 10989    | Terminal kit | \$8.95 | \$7.95 | \$7.25 |

## Wire Connectors



- Material: UL approved nylon 66, 94V2
- Quick and secure method to splice control wires
- Strip wire before application
- Twist on type
- Material: PVC with metal spring, except: P/N 182449 nylon 66, 94-2 and P/N 140716 PE - metal inside

## 182449: UL/CSA approved

Quantity SAVE

- Minimum order 10 pieces

| Part No. | Description        | Color | 10     | 100     | 1000    |
|----------|--------------------|-------|--------|---------|---------|
| 182449   | Crimp 16-14 AWG    | Nat   | \$0.60 | \$0.055 | \$0.041 |
| 182511   | Wire nut 16 AWG    | Blue  | .045   | .04     | .035    |
| 140716   | Wire IDC 22-18 AWG | Red   | .15    | .14     | .10     |

\* Requires crimping tool (P/N 72996, left)

## Telecom Splice Connectors

- Provides clean, solid, and rapid connection of wires to keep communication lines free of noise
- Available to handle a wide range of conductor sizes



## 169755: Y-type

- Minimum order 10 pieces

| Part No. | Color  | Wire Gauge | No. of Conductors | 10      | 100     | 1000    |
|----------|--------|------------|-------------------|---------|---------|---------|
| 169747   | Yellow | 22-26      | 2                 | \$0.114 | \$0.103 | \$0.093 |
| 169755   | Red    | 19-26      | 3Y                | .15     | .14     | .12     |



## Scotchlok™ IDC Communications Connector

Used for tap splicing voice and data communication cables with solid copper single-conductor wires.

- 25 pieces per pkg.

Blue Part No. = Limited Quantity Available



| Part No. | Product No. | Description | 1      | 10     | 25     |
|----------|-------------|-------------|--------|--------|--------|
| 652033   | 03721       | Yellow      | \$6.99 | \$6.25 | \$5.61 |



## Connector Crimp Tool

This E-9Y Scotchlok connector crimp tool is used for crimping Scotchlok IDC telecom splices.



| Part No. | Description | 1       | 5       | 10      |
|----------|-------------|---------|---------|---------|
| 652244   | Crimp tool  | \$34.25 | \$32.61 | \$30.98 |



**P.I.D.G. (Pre-Insulated Diamond Grip)  
Nylon Insulated Terminals**

Designed for complete and uniform reliability. Nylon insulated terminals feature a tin plated copper body with a copper sleeve fitted over the terminal barrel to provide maximum insulation support.

- High dielectric strength
  - Funnel ramp entry
  - Copper support sleeve for insulation
- ♣ Blue Part No. = Limited Quantity Available

- Temperature rating: 105°C
- Meets MIL-T-7928

**Quantity SAVE****Lower \$\$\$**

Fig. 1



Fig. 2



Fig. 3



Fig. 4

**Ring Tongue Terminals**

\* Minimum order 5 pieces

| Part No. | Product No. | Fig. | Stud Size | Wire (AWG) | Color  | 1     | 5      | 50     |
|----------|-------------|------|-----------|------------|--------|-------|--------|--------|
| 302607   | 323914♣     | 1    | #4        | 26-22      | Yellow | \$.20 | \$.179 | \$.134 |
| 302615   | 323915♣     | 1    | #6        | 26-22      | Yellow | .21   | .208   | .186   |
| 302658   | 31880♣      | 1    | #4        | 22-16      | Red    | *     | .153   | .147   |
| 527321   | 36149♣      | 1    | #6        | 22-16      | Red    | .25   | .213   | .176   |
| 302666   | 36152♣      | 1    | #6        | 22-16      | Red    | .20   | .145   | .133   |
| 527312   | 51863♣      | 1    | #6        | 22-16      | Red    | .20   | .162   | .135   |
| 302674   | 31890♣      | 1    | #8        | 22-16      | Red    | .20   | .15    | .133   |
| 526707   | 320551♣     | 1    | #8        | 22-16      | Red    | .20   | .13    | .122   |
| 527275   | 36153       | 1    | #10       | 22-16      | Red    | .20   | .148   | .13    |
| 302682   | 36154♣      | 1    | #10       | 22-16      | Red    | .20   | .15    | .133   |
| 302691   | 31894♣      | 1    | 1/4"      | 22-16      | Red    | .20   | .181   | .135   |
| 302720   | 320619♣     | 1    | #6        | 16-14      | Blue   | *     | .151   | .137   |
| 302738   | 320565♣     | 1    | #8        | 16-14      | Blue   | .20   | .145   | .133   |
| 302746   | 36160♣      | 1    | #10       | 16-14      | Blue   | .20   | .145   | .108   |
| 302754   | 321045♣     | 1    | 1/4"      | 16-14      | Blue   | .20   | .169   | .162   |
| 302797   | 35108♣      | 1    | #8        | 12-10      | Yellow | .20   | .189   | .171   |
| 527224   | 320568♣     | 1    | #8        | 12-10      | Yellow | .20   | .175   | .155   |
| 302800   | 35109♣      | 1    | #10       | 12-10      | Yellow | .20   | .189   | .171   |
| 527208   | 36161♣      | 1    | #10       | 12-10      | Yellow | *     | .131   | .119   |
| 302818   | 35110♣      | 1    | 1/4"      | 12-10      | Yellow | .33   | .327   | .218   |
| 302826   | 35111♣      | 1    | 5/16"     | 12-10      | Yellow | \$.33 | .24    | .172   |
| 302834   | 35112♣      | 1    | 3/8"      | 12-10      | Yellow | .33   | .327   | .218   |

**Spade Tongue Terminals**

| Part No. | Product No. | Fig. | Stud Size | Wire (AWG) | Color  | 1     | 5      | 50     |
|----------|-------------|------|-----------|------------|--------|-------|--------|--------|
| 302851   | 328394♣     | 2    | #2        | 22-16      | Red    | \$.21 | \$.208 | \$.185 |
| 302869   | 327717♣     | 2    | #4        | 22-16      | Red    | .26   | .253   | .225   |
| 302877   | 34541♣      | 2    | #6        | 22-16      | Red    | .20   | .145   | .133   |
| 302885   | 32053♣      | 2    | #8        | 22-16      | Red    | .31   | .264   | .227   |
| 302893   | 32054♣      | 2    | #10       | 22-16      | Red    | .20   | .179   | .134   |
| 302906   | 35559♣      | 2    | #6        | 16-14      | Blue   | .21   | .208   | .161   |
| 302914   | 32059♣      | 2    | #8        | 16-14      | Blue   | .20   | .17    | .128   |
| 302922   | 321233♣     | 2    | #8        | 16-14      | Blue   | .24   | .236   | .21    |
| 302931   | 32060♣      | 2    | #10       | 16-14      | Blue   | .21   | .198   | .186   |
| 302949   | 326859♣     | 2    | #6        | 12-10      | Yellow | .42   | .357   | .268   |
| 302957   | 32588♣      | 2    | #8        | 12-10      | Yellow | .31   | .309   | .275   |

**Flanged Spade Tongue Terminals**

| Part No. | Product No. | Fig. | Stud Size | Wire (AWG) | Color | 1     | 5      | 50     |
|----------|-------------|------|-----------|------------|-------|-------|--------|--------|
| 302990   | 32498♣      | 3    | #8        | 22-16      | Red   | \$.50 | \$.451 | \$.338 |
| 303010   | 320862♣     | 3    | #8        | 16-14      | Blue  | *     | .167   | .125   |

**Short Spring Spade Tongue Terminals**

| Part No. | Product No. | Fig. | Stud Size | Wire (AWG) | Color  | 1     | 5     | 50    |
|----------|-------------|------|-----------|------------|--------|-------|-------|-------|
| 303141   | 52942♣      | 4    | #8        | 12-10      | Yellow | \$.26 | \$.26 | \$.22 |

**Save Big! Special Values!**

New Lower Prices = Orange  
Exceptional Quantity Discounts = Green

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product ♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)**P.I.D.G. Insulated Terminals (Continued)****Butt & Knife Disconnect Splices**

Fig. 5



Fig. 6



Fig. 7

| Part No. | Product No. | Fig. | Description    | Wire (AWG) | Color   | 1     | 5      | 50     |
|----------|-------------|------|----------------|------------|---------|-------|--------|--------|
| 303167   | 323994♣     | 5    | Butt           | 26-22      | Yellow  | \$.39 | \$.369 | \$.349 |
| 527574   | 323975♣     | 5    | Butt           | 24-20      | Natural | .35   | .321   | .281   |
| 303175   | 320559♣     | 5    | Butt           | 22-16      | Red     | .57   | .496   | .378   |
| 303183   | 320562♣     | 5    | Butt           | 16-14      | Blue    | .44   | .374   | .317   |
| 303191   | 320570♣     | 5    | Butt           | 12-10      | Yellow  | .75   | .74    | .68    |
| 303212   | 32448♣      | 6    | Knife disconn. | 16-14      | Blue    | .31   | .29    | .274   |

**Fast-On Receptacles**

| Part No. | Product No. | Fig. | Size (in.)  | Wire (AWG) | Color  | 1     | 5     | 50    |
|----------|-------------|------|-------------|------------|--------|-------|-------|-------|
| 303247   | 640923-1♣   | 7    | .110 x .020 | 22-18      | Red    | \$.21 | \$.20 | \$.15 |
| 303255   | 640917-1♣   | 7    | .187 x .020 | 22-18      | Red    | .20   | .162  | .157  |
| 303263   | 640909-1♣   | 7    | .205 x .020 | 22-18      | Red    | .22   | .214  | .163  |
| 303280   | 640903-1♣   | 7    | .250 x .032 | 22-18      | Red    | .20   | .16   | .13   |
| 525034   | 640903-2♣   | 7    | .250 x .032 | 22-18      | Red    | .20   | .143  | .13   |
| 303301   | 640919-1♣   | 7    | .187 x .020 | 16-14      | Blue   | .22   | .214  | .163  |
| 303319   | 640915-1♣   | 7    | .205 x .032 | 16-14      | Blue   | .22   | .214  | .163  |
| 303327   | 640905-1♣   | 7    | .250 x .032 | 16-14      | Blue   | .20   | .162  | .16   |
| 525042   | 640905-2♣   | 7    | .250 x .032 | 16-14      | Blue   | .20   | .116  | .105  |
| 303343   | 640907-1♣   | 7    | .250 x .032 | 12-10      | Yellow | .25   | .237  | .166  |

To Find Additional Products, Visit [www.Jameco.com/Prod/AMPTerminals](http://www.Jameco.com/Prod/AMPTerminals)**Fast-On Insulated Terminals**

- One-piece fully insulated fast-on receptacle/tab with insulation crimp prevents shock and short hazards
- Designed for full mating with a variety of tabs and receptacles including those with shoulders
- Funnel wire entry and wire stop
- Assemblies contain wire size and tab size designation as well as color-coded for wire gauge designation
- Prepackaged: please order in increments of 100



524103



526820



524120



524146

**Ultra-Fast Fully Insulated Receptacle Assembly (0.110"/0.125")**

| Part No. | Product No. | Width | AWG   | Color | Terminal          | 100    | 500    | 1000   |
|----------|-------------|-------|-------|-------|-------------------|--------|--------|--------|
| 524103   | 2-520084-2♣ | .239" | 22-18 | Red   | Brass, tin plated | \$.131 | \$.117 | \$.106 |

**Ultra-Fast Fully Insulated Receptacle Assembly (0.187")**

| Part No. | Product No. | Width  | AWG   | Color | Terminal          | 100   | 500    | 1000   |
|----------|-------------|--------|-------|-------|-------------------|-------|--------|--------|
| 524197   | 2-520182-2♣ | 0.300" | 22-18 | Red   | Brass, tin-plated | \$.12 | \$.114 | \$.105 |
| 524226   | 2-520194-2♣ | 0.300" | 22-18 | Red   | Brass, tin-plated | .15   | .143   | .11    |
| 524306   | 2-520335-2♣ | 0.300" | 22-18 | Red   | Brass, tin-plated | .20   | .178   | .157   |
| 526820   | 3-350816-2♣ | 0.300" | 16-14 | Blue  | Brass, tin-plated | .124  | .109   | .094   |

**Ultra-Fast Fully Insulated Tab Assembly (0.250")**

| Part No. | Product No. | Width  | AWG   | Color | Terminal          | 100   | 500    | 1000   |
|----------|-------------|--------|-------|-------|-------------------|-------|--------|--------|
| 524120   | 2-520103-2♣ | 0.487" | 22-18 | Red   | Brass, tin-plated | \$.19 | \$.171 | \$.159 |
| 524146   | 3-520107-2♣ | 0.487" | 16-14 | Blue  | Brass, tin-plated | .19   | .165   | .158   |

**Solder, Fast-On Tab, PC Mount (0.250")**

| Part No. | Product No. | Width  | AWG | Color | Terminal        | 100   | 500    | 1000   |
|----------|-------------|--------|-----|-------|-----------------|-------|--------|--------|
| 526619   | 62409-1♣    | 0.250" | —   | —     | Tin over copper | \$.06 | \$.054 | \$.042 |

**Ultra-Fast Fully Insulated Receptacle Assembly (0.250")**

| Part No. | Product No. | Width  | AWG   | Color  | Terminal          | 100   | 500   | 1000  |
|----------|-------------|--------|-------|--------|-------------------|-------|-------|-------|
| 524218   | 2-520184-2♣ | 0.373" | 22-18 | Red    | Brass, tin-plated | \$.12 | \$.11 | \$.10 |
| 524293   | 2-520264-2♣ | 0.373" | 22-18 | Red    | Brass, tin plated | .152  | .143  | .119  |
| 524331   | 2-520407-2♣ | 0.373" | 22-18 | Red    | Brass, tin-plated | .17   | .161  | .152  |
| 526838   | 3-350820-2♣ | 0.373" | 16-14 | Blue   | Brass, tin-plated | .13   | .123  | .114  |
| 524171   | 3-520141-2♣ | 0.373" | 16-14 | Blue   | Brass, tin-plated | .20   | .144  | .124  |
| 524349   | 3-520408-2♣ | 0.373" | 16-14 | Blue   | Brass, tin-plated | .17   | .153  | .137  |
| 524373   | 4-520448-2♣ | 0.373" | 12-10 | Yellow | Brass, tin-plated | .25   | .22   | .164  |



## Insulkrimp® Solderless Terminals



- Designed for dense packaging requirements; the profile height is lower than other competing products on the market
- Translucent "see-through" insulator provides fast, on-line quality control inspection by allowing a quick visual check of the wire/terminal assembly
- Terminal's funnel entrance is designed for increased crimping rates by speeding wire delivery into the crimp section and eliminating wire strand fold back
- A wire stop stamped into the crimp barrel prevents insertion of over-stripped wires

### Female Quick Disconnect

- Material: brass • PVC insulation • Prepackaged: please order in increments of 100

| Part No. | Product No.  | AWG/Color  | Tab Size (in.) | 100   | 500    | 1000   |
|----------|--------------|------------|----------------|-------|--------|--------|
| 489627   | 19003-0001-C | 18-22/Red  | 0.250 x 0.032  | \$.15 | \$.133 | \$.105 |
| 489635   | 19003-0011-C | 18-22/Red  | 0.187 x 0.020  | .15   | .133   | .105   |
| 489643   | 19003-0017-C | 18-22/Red  | 0.187 x 0.032  | .11   | .105   | .086   |
| 489651   | 19003-0024-C | 18-22/Red  | 0.110 x 0.020  | .11   | .105   | .086   |
| 489660   | 19003-0030-C | 18-22/Red  | 0.110 x 0.032  | .10   | .095   | .076   |
| 489678   | 19003-0040-C | 14-16/Blue | 0.250 x 0.032  | .10   | .087   | .076   |
| 489694   | 19003-0050-C | 14-16/Blue | 0.187 x 0.020  | .11   | .095   | .086   |
| 489715   | 19003-0056-C | 14-16/Blue | 0.187 x 0.032  | .155  | .124   | .095   |
| 489686   | 19003-0044-C | 14-16/Blue | 0.250 x 0.032  | .16   | .14    | .112   |

### Ring Tongue

- Material: copper • PVC insulation

Quantity SAVE

| Part No. | Product No.  | AWG/Color    | Stud Size | Width (in.) | 100   | 500    | 1000   |
|----------|--------------|--------------|-----------|-------------|-------|--------|--------|
| 490610   | 19070-0008-C | 18-22/Red    | 3-4       | 0.235       | \$.11 | \$.108 | \$.105 |
| 490687   | 19070-0033-C | 18-22/Red    | 3/8       | 1.259       | .19   | .165   | .132   |
| 490652   | 19070-0015-C | 18-22/Red    | 10        | 0.896       | .14   | .114   | .095   |
| 490644   | 19070-0013-C | 18-22/Red    | 8         | 0.896       | .09   | .086   | .076   |
| 490708   | 19070-0044-C | 18-22/Red    | 8         | 0.807       | .11   | .10    | .09    |
| 490695   | 19070-0040-C | 18-22/Red    | 5-6       | 0.807       | .143  | .114   | .095   |
| 490599   | 19070-0005-C | 18-22/Red    | 1-2       | 0.709       | .11   | .096   | .077   |
| 490601   | 19070-0007-C | 18-22/Red    | 3-4       | 0.709       | .11   | .096   | .077   |
| 490628   | 19070-0009-C | 18-22/Red    | 5-6       | 0.709       | .11   | .105   | .095   |
| 490661   | 19070-0023-C | 18-22/Red    | 1/4       | 0.477       | .15   | .133   | .105   |
| 514802   | 19070-0038-C | 18-22/Red    | 3-4       | 0.264       | .11   | .10    | .09    |
| 490724   | 19070-0069-C | 14-16/Blue   | 5-6       | 0.785       | .14   | .114   | .095   |
| 490732   | 19070-0071-C | 14-16/Blue   | 8         | 0.785       | .11   | .105   | .095   |
| 514829   | 19070-0065-C | 14-16/Blue   | 1-2       | 0.260       | .11   | .10    | .09    |
| 490741   | 19070-0075-C | 14-16/Blue   | 1/4       | 1.062       | .15   | .128   | .096   |
| 490759   | 19070-0078-C | 14-16/Blue   | 5/16      | 1.062       | .11   | .105   | .095   |
| 490767   | 19070-0083-C | 14-16/Blue   | 5-6       | 0.865       | .11   | .105   | .095   |
| 490775   | 19070-0086-C | 14-16/Blue   | 8         | 0.865       | .095  | .086   | .076   |
| 490783   | 19070-0090-C | 14-16/Blue   | 10        | 0.865       | .14   | .114   | .095   |
| 490791   | 19070-0099-C | 14-16/Blue   | 8         | 0.921       | .11   | .105   | .095   |
| 490804   | 19070-0102-C | 14-16/Blue   | 10        | 0.921       | .114  | .105   | .086   |
| 490812   | 19070-0109-C | 10-12/Yellow | 1/2       | 0.571       | .15   | .143   | .133   |
| 490821   | 19070-0121-C | 10-12/Yellow | 8         | 1.076       | .13   | .124   | .105   |
| 490839   | 19070-0123-C | 10-12/Yellow | 10        | 1.076       | .13   | .105   | .086   |
| 514845   | 19070-0130-C | 10-12/Yellow | 10        | 1.243       | .13   | .124   | .114   |
| 490847   | 19070-0132-C | 10-12/Yellow | 1/4       | 1.243       | .14   | .114   | .099   |
| 490855   | 19070-0136-C | 10-12/Yellow | 5/16      | 1.243       | .13   | .124   | .114   |
| 490863   | 19070-0143-C | 10-12/Yellow | 5-6       | 1.032       | .13   | .105   | .086   |
| 490871   | 19070-0145-C | 10-12/Yellow | 8         | 1.032       | .17   | .143   | .114   |
| 514853   | 19070-0150-C | 10-12/Yellow | 1/4       | 1.347       | .20   | .171   | .143   |
| 490880   | 19070-0153-C | 10-12/Yellow | 3/8       | 1.347       | .20   | .171   | .143   |
| 490898   | 19070-0155-C | 10-12/Yellow | 5/16      | 1.347       | .209  | .171   | .143   |

### Butt-Splice

- Material: copper • PVC insulation • 503071/503100: seamless barrel

| Part No. | Product No.  | AWG/Color  | Length (in.) | 100    | 500    | 1000   |
|----------|--------------|------------|--------------|--------|--------|--------|
| 503062   | 19154-0004-C | 18-22/Red  | 0.960        | \$.105 | \$.086 | \$.067 |
| 503071   | 19154-0011-C | 18-22/Red  | 1.035        | .124   | .114   | .095   |
| 503089   | 19154-0015-C | 14-16/Blue | 0.975        | .10    | .086   | .067   |
| 503100   | 19154-0023-C | 14-16/Blue | 1.08         | .07    | .069   | .06    |
| 503118   | 19154-0028-C | 14-16/Blue | 1.135        | .08    | .07    | .065   |

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.



## Insulkrimp® Solderless Terminals (Continued)

### Spade Tongue

- Material: copper • PVC insulation • Prepackaged: please order in increments of 100

| Part No. | Product No.  | AWG/Color    | Stud Size | Width (in.) | 100   | 500    | 1000   |
|----------|--------------|--------------|-----------|-------------|-------|--------|--------|
| 502879   | 19144-0001-C | 18-22/Red    | 5-6       | 0.326       | \$.09 | \$.086 | \$.076 |
| 502887   | 19144-0003-C | 18-22/Red    | 8         | 0.326       | .09   | .086   | .076   |
| 502916   | 19144-0015-C | 14-16/Blue   | 5-6       | 0.255       | .10   | .095   | .086   |
| 502924   | 19144-0018-C | 14-16/Blue   | 5-6       | 0.305       | .10   | .086   | .067   |
| 502932   | 19144-0020-C | 14-16/Blue   | 8         | 0.305       | .106  | .097   | .087   |
| 502959   | 19144-0024-C | 14-16/Blue   | 8         | 0.372       | .11   | .096   | .067   |
| 502967   | 19144-0026-C | 14-16/Blue   | 10        | 0.372       | .14   | .114   | .095   |
| 502975   | 19144-0037-C | 14-16/Blue   | 10        | 0.385       | .13   | .109   | .09    |
| 502983   | 19144-0039-C | 10-12/Yellow | 8         | 0.385       | .169  | .142   | .123   |
| 502991   | 19144-0042-C | 10-12/Yellow | 10        | 0.385       | .13   | .109   | .091   |
| 503003   | 19144-0046-C | 10-12/Yellow | 1/4       | 0.543       | .237  | .133   | .104   |

### Step Down Butt Connectors

The perfect solution when 2 wires need to be inserted in one end of a splice and a single wire in the other end.

- PVC insulation

| Part No. | Product No.  | AWG            | Description           | 100   | 500    | 1000   |
|----------|--------------|----------------|-----------------------|-------|--------|--------|
| 503097   | 19154-0022-C | 14-16 to 18-22 | Blue w/ red stripe    | \$.35 | \$.341 | \$.337 |
| 503126   | 19154-0035-C | 10-12 to 14-16 | Yellow w/ blue stripe | .43   | .399   | .38    |
| 491946   | 19154-0044-C | 8 to 10-12     | Red w/ yellow stripe  | .58   | .55    | .539   |
| 494856   | 19215-0023-C | 10-12 to 14-16 | Non-insulated         | .57   | .466   | .361   |

### Snap Plugs

- Material: copper • PVC insulation • Thickness: 0.032" max. • Color: blue

| Part No. | Product No.  | AWG   | Barrel Length | Diam.  | Max. Length | 100   | 500    | 1000   |
|----------|--------------|-------|---------------|--------|-------------|-------|--------|--------|
| 490311   | 19034-0009-C | 14-16 | 0.254"        | 0.156" | 0.890"      | \$.11 | \$.095 | \$.086 |



## Krimptite™ Solderless Terminals

This Krimptite is the basic barrel style that is non-insulated and features a quality, one-piece design. It is also the most economical style and has the greatest variety of uses.



### Spade Terminals

- Material: copper • Non-insulated • Prepackaged: please order in increments of 100

| Part No. | Product No.  | AWG   | Stud Size | Width (in.) | 100    | 500    | 1000   |
|----------|--------------|-------|-----------|-------------|--------|--------|--------|
| 502836   | 19141-0098-C | 24-26 | 4         | 0.213       | \$.029 | \$.027 | \$.025 |
| 502705   | 19141-0022-C | 18-22 | 8         | 0.326       | .034   | .032   | .03    |
| 502692   | 19141-0020-C | 18-22 | 5-6       | 0.326       | .034   | .032   | .03    |
| 502748   | 19141-0058-C | 14-16 | 8         | 0.305       | .029   | .027   | .025   |
| 502730   | 19141-0056-C | 14-16 | 5-6       | 0.305       | .029   | .027   | .025   |
| 502801   | 19141-0085-C | 10-12 | 10        | 0.385       | .064   | .061   | .058   |

### Uninsulated Flag Terminal

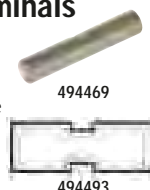
- Use with 0.250 x 0.032 flags • No vibration support

| Part No. | Product No.  | AWG   | Barrel Length | Diam.  | Max. Length | 100    | 500    | 1000   |
|----------|--------------|-------|---------------|--------|-------------|--------|--------|--------|
| 489900   | 19008-0038-C | 12-14 | 0.312"        | 0.319" | 0.621"      | \$.152 | \$.143 | \$.124 |



## Versakrimp™ Solderless Terminals

When the butted seam Krimptite barrel is bonded with a special brazing alloy, it becomes a Versakrimp barrel. These brazed-seam barrel terminals and splices will not open under conditions of stress or wire pull. As versatile as it is tough, it can be crimped under most adverse conditions by many types of tooling. The Versakrimp is ideal for hard-to-crimp solid and stranded wires.



### Butt Splice

- Seamless barrel • Material: copper • Prepackaged: please order in increments of 100

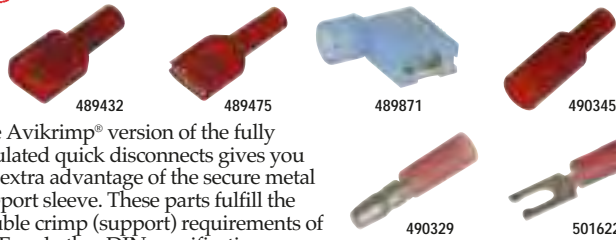
| Part No. | Product No.  | AWG   | Inner Diam. | Outer Diam. | Length | 100    | 500   | 1000   |
|----------|--------------|-------|-------------|-------------|--------|--------|-------|--------|
| 494469   | 19215-0009-C | 18-22 | 0.059"      | 0.130"      | 0.675" | \$.067 | \$.06 | \$.048 |
| 494477   | 19215-0018-C | 14-16 | 0.091"      | 0.160"      | 0.675" | .114   | .105  | .086   |
| 494485   | 19215-0028-C | 10-12 | 0.138"      | 0.223"      | 0.827" | .124   | .114  | .095   |

### Butt Splice w/ Seamless Barrel

|        |              |   |        |        |        |        |        |        |
|--------|--------------|---|--------|--------|--------|--------|--------|--------|
| 494493 | 19215-0034-V | 8 | 0.165" | 0.295" | 0.864" | \$.181 | \$.171 | \$.162 |
|--------|--------------|---|--------|--------|--------|--------|--------|--------|



## Avikrimp® Solderless Terminals



The Avikrimp® version of the fully insulated quick disconnects gives you the extra advantage of the secure metal support sleeve. These parts fulfill the double crimp (support) requirements of VDE and other DIN specifications.

Prepackaged: please order in increments of 100

## Female Quick Disconnect w/ Vibration Support

| Part No. | Product No.  | AWG/Color    | Length | Tab Size (in.) | 100    | 500    | 1000   |
|----------|--------------|--------------|--------|----------------|--------|--------|--------|
| 490177   | 19019-0004-C | 18-22/Red    | 0.789" | 0.110 x 0.032  | \$.143 | \$.114 | \$.095 |
| 490169   | 19019-0001-C | 18-22/Red    | 0.789" | 0.110 x 0.020  | .19    | .152   | .124   |
| 490185   | 19019-0006-C | 18-22/Red    | 0.789" | 0.187 x 0.020  | .143   | .114   | .095   |
| 490206   | 19019-0012-C | 18-22/Red    | 0.865" | 0.250 x 0.032  | .171   | .143   | .114   |
| 490231   | 19019-0027-C | 14-16/Blue   | 0.789" | 0.187 x 0.020  | .143   | .114   | .095   |
| 490214   | 19019-0022-C | 14-16/Blue   | 0.789" | 0.110 x 0.020  | .218   | .181   | .145   |
| 490249   | 19019-0028-C | 14-16/Blue   | 0.789" | 0.187 x 0.032  | .143   | .114   | .095   |
| 490257   | 19019-0031-C | 14-16/Blue   | 0.865" | 0.250 x 0.032  | .143   | .114   | .095   |
| 490281   | 19019-0052-C | 12-14/Yellow | 0.865" | 0.250 x 0.032  | .124   | .114   | .105   |
| 490265   | 19019-0037-C | 10-12/Yellow | 1.011" | 0.250 x 0.032  | .15    | .134   | .129   |

## Male Quick Disconnect

| Part No. | Product No.  | AWG/Color    | Length | Tab Size (in.) | 100    | 500    | 1000   |
|----------|--------------|--------------|--------|----------------|--------|--------|--------|
| 489432   | 19001-0003-C | 18-22/Red    | 0.900" | 0.187 x 0.020  | \$.187 | \$.178 | \$.169 |
| 489441   | 19001-0006-C | 14-16/Blue   | 0.960" | 0.250 x 0.032  | .323   | .266   | .219   |
| 489467   | 19001-0010-C | 10-12/Yellow | 1.080" | 0.250 x 0.032  | .38    | .323   | .257   |

## Female Quick Disconnect

Lower \$\$\$

| Part No. | Product No.  | AWG/Color    | Length | Tab Size (in.) | 100    | 500    | 1000   |
|----------|--------------|--------------|--------|----------------|--------|--------|--------|
| 489475   | 19002-0001-C | 18-22/Red    | 0.890" | 0.250 x 0.032  | \$.183 | \$.156 | \$.144 |
| 489491   | 19002-0009-C | 18-22/Red    | 0.800" | 0.187 x 0.032  | .295   | .247   | .20    |
| 489504   | 19002-0013-C | 18-22/Red    | 0.800" | 0.110 x 0.020  | .171   | .162   | .154   |
| 489512   | 19002-0016-C | 18-22/Red    | 0.800" | 0.110 x 0.032  | .15    | .143   | .136   |
| 489521   | 19002-0019-C | 18-22/Red    | 0.800" | 0.205 x 0.020  | .138   | .131   | .125   |
| 489539   | 19002-0021-C | 18-22/Red    | 0.800" | 0.205 x 0.032  | .138   | .131   | .125   |
| 489547   | 19002-0024-C | 14-16/Blue   | 0.890" | 0.250 x 0.032  | .183   | .174   | .165   |
| 489555   | 19002-0028-C | 14-16/Blue   | 0.800" | 0.187 x 0.020  | .295   | .247   | .20    |
| 489563   | 19002-0031-C | 14-16/Blue   | 0.800" | 0.187 x 0.032  | .295   | .247   | .20    |
| 489580   | 19002-0037-C | 14-16/Blue   | 0.800" | 0.110 x 0.032  | .295   | .247   | .20    |
| 489598   | 19002-0040-C | 14-16/Blue   | 0.800" | 0.205 x 0.020  | .138   | .131   | .125   |
| 489601   | 19002-0042-C | 14-16/Blue   | 0.800" | 0.205 x 0.032  | .138   | .131   | .125   |
| 489619   | 19002-0044-C | 10-12/Yellow | 1.040" | 0.250 x 0.032  | .224   | .205   | .185   |

## Fully Insulated Flag Quick Disconnects

| Part No. | Product No.  | AWG/Color    | Width  | Tab Size (in.) | 100    | 500    | 1000   |
|----------|--------------|--------------|--------|----------------|--------|--------|--------|
| 489854   | 19007-0001-C | 18-22/Red    | 0.390" | .250 x 0.032   | \$.141 | \$.135 | \$.129 |
| 489871   | 19007-0021-C | 14-16/Blue   | 0.390" | .250 x 0.032   | .127   | .121   | .115   |
| 489889   | 19007-0029-C | 14-16/Blue   | 0.390" | .187 x 0.020   | .127   | .121   | .115   |
| 489897   | 19007-0040-C | 10-12/Yellow | 0.390" | .250 x 0.032   | .266   | .247   | .228   |

## Snap Plugs

• Material: brass

• Insulation: PVC

| Part No. | Product No.  | AWG/Color  | Barrel Length | Diam.  | Max. Length | 100    | 500    | 1000   |
|----------|--------------|------------|---------------|--------|-------------|--------|--------|--------|
| 490345   | 19039-0001-C | 18-22/Red  | 0.420"        | 0.156" | 1.01"       | \$.133 | \$.124 | \$.114 |
| 490361   | 19039-0006-C | 14-16/Blue | 0.420"        | 0.156" | 1.01"       | .133   | .124   | .114   |
| 490370   | 19039-0009-C | 14-16/Blue | 0.420"        | 0.180" | 1.01"       | .143   | .133   | .124   |

## Plugs

• Material: copper • Thickness: 0.032" max.

490329: 0.145" max. wire insulation 490337: 0.170" max. wire insulation

| Part No. | Product No.  | AWG/Color  | Barrel Length | Diam.  | Max. Length | 100    | 500   | 1000   |
|----------|--------------|------------|---------------|--------|-------------|--------|-------|--------|
| 490329   | 19036-0003-C | 18-22/Red  | 0.254"        | 0.156" | 0.897"      | \$.133 | \$.13 | \$.127 |
| 490337   | 19036-0008-C | 14-16/Blue | 0.254"        | 0.156" | 0.897"      | .143   | .133  | .124   |

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.



## Avikrimp® Solderless Terminals (Continued)

## Spade Terminals

• Material: copper

• Nylon insulation

Prepackaged: please order in increments of 100

| Part No. | Product No.  | AWG/Color    | Stud Size | Width (in.) | 100   | 500    | 1000   |
|----------|--------------|--------------|-----------|-------------|-------|--------|--------|
| 501622   | 19115-0001-C | 18-22/Red    | 5-6       | 0.270       | \$.19 | \$.162 | \$.124 |
| 501631   | 19115-0003-C | 18-22/Red    | 8         | 0.300       | .133  | .124   | .105   |
| 501665   | 19115-0009-C | 18-22/Red    | 5-6       | 0.260       | .152  | .124   | .095   |
| 501673   | 19115-0012-C | 18-22/Red    | 8         | 0.320       | .133  | .124   | .114   |
| 501690   | 19115-0016-C | 14-16/Blue   | 5-6       | 0.270       | .18   | .151   | .122   |
| 501711   | 19115-0020-C | 14-16/Blue   | 10        | 0.338       | .126  | .12    | .114   |
| 501702   | 19115-0018-C | 14-16/Blue   | 8         | 0.300       | .143  | .124   | .105   |
| 501817   | 19115-0079-C | 14-16/Blue   | 8         | 0.320       | .152  | .143   | .119   |
| 501729   | 19115-0024-C | 14-16/Blue   | 5-6       | 0.260       | .20   | .171   | .133   |
| 501737   | 19115-0031-C | 14-16/Blue   | 10        | 0.340       | .196  | .163   | .131   |
| 501745   | 19115-0033-C | 10-12/Yellow | 5-6       | 0.300       | .19   | .162   | .112   |
| 501753   | 19115-0035-C | 10-12/Yellow | 8         | 0.330       | .224  | .187   | .149   |
| 501809   | 19115-0048-C | 10-12/Yellow | 10        | 0.340       | .237  | .198   | .171   |



## Perma-Seal™ Solderless Terminals



Perma-Seal terminals and splices give you long-lasting, moisture-proof connections that withstand water, salt, condensation, corrosion and heat, all of which cause serious problems for conventional, unsealed splices. The inner wall of the heat-shrinkable Perma-Seal sleeve is lined with a special hot-melt adhesive that is inert at room temperature, permitting wires to be inserted easily into the splices and terminals.

• NiAc™ insulation

## Spade Terminals

Prepackaged: please order in increments of 100

| Part No. | Product No.  | AWG/Color    | Stud Size | 100    | 500    | 1000   |
|----------|--------------|--------------|-----------|--------|--------|--------|
| 491225   | 19164-0007-C | 18-22/Red    | 8         | \$.399 | \$.361 | \$.342 |
| 491196   | 19164-0006-C | 18-22/Red    | 6         | .361   | .323   | .304   |
| 491170   | 19164-0030-C | 14-16/Blue   | 10        | .58    | .485   | .38    |
| 491233   | 19164-0029-C | 14-16/Blue   | 8         | .58    | .485   | .38    |
| 491209   | 19164-0028-C | 14-16/Blue   | 6         | .58    | .485   | .38    |
| 491188   | 19164-0072-C | 10-12/Yellow | 10        | .74    | .513   | .343   |
| 491321   | 19164-0162-C | 10-12/Yellow | 8         | .52    | .48    | .46    |
| 491217   | 19164-0069-C | 10-12/Yellow | 6         | .74    | .513   | .343   |
| 491250   | 19164-0073-C | 10-12/Yellow | 1/4       | .74    | .61    | .488   |

## Ring Terminals

| Part No. | Product No.  | AWG/Color    | Stud Size | 100    | 500    | 1000   |
|----------|--------------|--------------|-----------|--------|--------|--------|
| 490986   | 19164-0003-C | 18-22/Red    | 10        | \$.399 | \$.361 | \$.342 |
| 491065   | 19164-0086-C | 18-22/Red    | 8         | .399   | .361   | .342   |
| 491031   | 19164-0085-C | 18-22/Red    | 6         | .399   | .361   | .342   |
| 491081   | 19164-0004-C | 18-22/Red    | 1/4       | .66    | .543   | .435   |
| 491111   | 19164-0005-C | 18-22/Red    | 3/8       | .65    | .541   | .433   |
| 490994   | 19164-0034-C | 14-16/Blue   | 10        | .418   | .399   | .38    |
| 491049   | 19164-0033-C | 14-16/Blue   | 8         | .418   | .399   | .38    |
| 491014   | 19164-0032-C | 14-16/Blue   | 6         | .418   | .399   | .38    |
| 491145   | 19164-0027-C | 14-16/Blue   | 5/16      | .69    | .57    | .456   |
| 491006   | 19164-0065-C | 10-12/Yellow | 10        | .447   | .409   | .38    |
| 491057   | 19164-0062-C | 10-12/Yellow | 8         | .447   | .409   | .38    |
| 491102   | 19164-0066-C | 10-12/Yellow | 1/4       | .447   | .409   | .38    |
| 491137   | 19164-0068-C | 10-12/Yellow | 3/8       | .74    | .513   | .343   |
| 491153   | 19164-0067-C | 10-12/Yellow | 5/16      | .74    | .61    | .488   |

## Quick Connect Couplers

| Part No. | Product No.  | AWG/Color    | Gender | Tab Size (in.) | 100    | 500    | 1000   |
|----------|--------------|--------------|--------|----------------|--------|--------|--------|
| 490951   | 19164-0015-C | 18-22/Red    | M      | 0.250 x 0.032  | \$.399 | \$.361 | \$.342 |
| 490927   | 19164-0017-C | 18-22/Red    | F      | 0.250 x 0.032  | .58    | .485   | .38    |
| 490960   | 19164-0048-C | 14-16/Blue   | M      | 0.250 x 0.032  | .59    | .494   | .371   |
| 490935   | 19164-0050-C | 14-16/Blue   | F      | 0.250 x 0.032  | .399   | .361   | .342   |
| 490978   | 19164-0075-C | 10-12/Yellow | M      | 0.250 x 0.032  | .76    | .64    | .505   |
| 490943   | 19164-0076-C | 10-12/Yellow | F      | 0.250 x 0.032  | .76    | .64    | .505   |

Color Code Legend

New Sale Lower\$ QtySave



## molex Perma-Seal™ Solderless Terminals (Continued)

Photos on previous page.

Prepackaged: please order in increments of 100

## Butt Splice

| Part No. | Product No.   | AWG/Color    | 100   | 500    | 1000   |
|----------|---------------|--------------|-------|--------|--------|
| 491305   | 19164-0013-C♣ | 18-22/Red    | \$.51 | \$.446 | \$.412 |
| 491313   | 19164-0044-C♣ | 14-16/Blue   | .48   | .432   | .393   |
| 492017   | 19164-0056-C♣ | 10-12/Yellow | .46   | .42    | .39    |
| 491989   | 19164-0079-C♣ | 8/Red        | 1.42  | 1.18   | .91    |

## Butt Splice Parallel Solder

Lower \$\$\$

| Part No. | Product No.   | AWG/Color  | 100    | 500    | 1000   |
|----------|---------------|------------|--------|--------|--------|
| 491330   | 19164-0163-C  | 18-22/Red  | \$.452 | \$.411 | \$.375 |
| 491971   | 19164-0164-C♣ | 14-16/Blue | .377   | .359   | .342   |

## Vinyl Insulated Solderless Terminals

- Insulation thickness: .030"
- Temperature to 105°C
- Use with crimping tool P/N 72996, pg 158
- Sold in increments of 10



## Ring &amp; Spade Solderless Terminals

| Part No. | Description        | Stud Size | Wire (AWG) | Color | 10    | 100   | 1000  |
|----------|--------------------|-----------|------------|-------|-------|-------|-------|
| 103684   | Ring solderless ♀  | #6        | 22-16      | Red   | \$.11 | \$.07 | \$.05 |
| 103588   | Spade solderless ♀ | #6        | 22-16      | Red   | .13   | .06   | .05   |
| 103596   | Spade solderless ♀ | #8        | 16-14      | Blue  | .12   | .068  | .06   |

## Disconnect Solderless Terminals

| Part No. | Description      | Blade Size | Wire (AWG) | Color | 10    | 100   | 1000  |
|----------|------------------|------------|------------|-------|-------|-------|-------|
| 106922   | Female ♀         | .187"      | 22-16      | Red   | \$.12 | \$.07 | \$.05 |
| 103668   | Female ♀         | .25"       | 22-16      | Red   | .12   | .07   | .05   |
| 109112   | Female w/ hood ♀ | .25"       | 22-16      | Red   | .17   | .11   | .055  |

## molex Insulation Displacement Connectors (IDC)

## Self-Tapping (ID) Tap &amp; Run Multi-lock Connectors

They will tap-splice, pigtail-splice, parallel splice or in-line splice insulated copper wire conductors for a wide range of applications.

Prepackaged: please order in increments of 100

| Part No. | Product No.   | AWG   | Description     | 100    | 500    | 1000  |
|----------|---------------|-------|-----------------|--------|--------|-------|
| 494522   | 19216-0003-C♣ | 14-18 | Blue insulation | \$.091 | \$.086 | \$.06 |
| 494531   | 19216-0005-C♣ | 18-22 | Red insulation  | .114   | .105   | .086  |

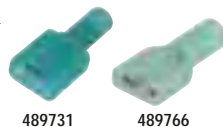
## Ultimate Wire Tap

This Tap-And-Run splice is actually a fully insulated female quick disconnect that can be spliced onto a wire and then mated with a fully insulated male quick disconnect, without any special tools.

| Part No. | Product No.   | AWG | Description     | 100    | 500    | 1000   |
|----------|---------------|-----|-----------------|--------|--------|--------|
| 494549   | 19216-0009-C♣ | 12  | Yellow wire tap | \$.182 | \$.175 | \$.168 |

## molex Fully Insulated Couplers

These fully insulated nylon couplers are precision engineered, allowing the female terminal to fit precisely into the corresponding male housing, which provides a fully insulated inline splice. This splice may be connected and disconnected without damage to the nylon insulation.



## Male Couplers

Prepackaged: please order in increments of 100

| Part No. | Product No.   | AWG   | Color | Tab Size (in.) | 100    | 500    | 1000   |
|----------|---------------|-------|-------|----------------|--------|--------|--------|
| 489723   | 19004-0001-C♣ | 18-22 | Red   | 0.250 x 0.032  | \$.155 | \$.137 | \$.117 |
| 489731   | 19004-0005-C  | 14-16 | Blue  | 0.250 x 0.032  | .104   | .099   | .094   |

## Female Couplers

| Part No. | Product No.   | AWG   | Color  | Tab Size (in.) | 100    | 500    | 1000   |
|----------|---------------|-------|--------|----------------|--------|--------|--------|
| 489758   | 19005-0001-C♣ | 18-22 | Red    | 0.250 x 0.032  | \$.124 | \$.114 | \$.095 |
| 489766   | 19005-0005-C  | 14-16 | Blue   | 0.250 x 0.032  | .095   | .09    | .086   |
| 489774   | 19005-0010-C♣ | 10-12 | Yellow | 0.250 x 0.032  | .219   | .181   | .143   |

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product

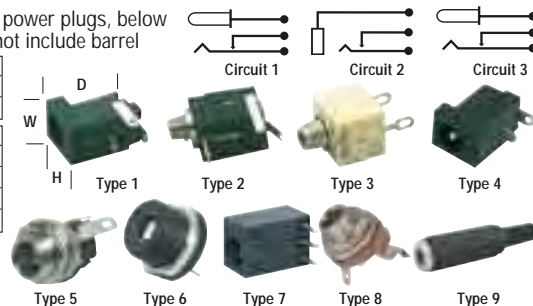
⊕ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.

## Male &amp; Female Power Jacks

- Use with mating power plugs, below
- Dimensions do not include barrel

| Terminals     | Code |
|---------------|------|
| Solder eyelet | A    |
| PC board      | B    |
| Mounting      | Code |
| Panel         | C    |
| PCB           | D    |
| Panel & PCB   | E    |
| Cable         | F    |



Quantity SAVE

Lower \$\$\$

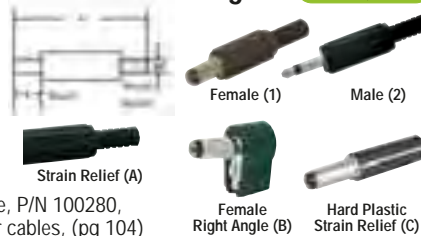
| Part Number         | Cross Ref. No. | Dimensions H x W x D (mm) | Type/ Mount | Circuit/ Terminal | Mating Plug (below) | Pricing                                    |        |       |        |
|---------------------|----------------|---------------------------|-------------|-------------------|---------------------|--|--------|-------|--------|
| 1.3 mm Male Jacks   |                |                           |             |                   |                     | 1  | 10     | 100   | 1000   |
| 101194              | PP024 ⊕        | 6.0 x 6.0 x 9.0           | 7/D         | 1/B               | 1.3 mm F            | \$.62                                      | \$.48  | \$.44 | \$.36  |
| 2.1 mm Male Jacks   |                |                           |             |                   |                     | Blue Part No. = Limited Quantity Available |        |       |        |
| 101179              | PP014 ♀        | 10.9 x 9.0 x 14.5         | 1/D         | 1/A               | 2.1 mm F            | \$.49                                      | \$.44  | \$.39 | \$.35  |
| 137673              | PP013 ♀        | 10.9 x 9.0 x 14.5         | 4/D         | 3/A               | 2.1 mm F            | .40  | .36    | .32   | .29    |
| 151590              | DPJ-021A ♀     | 13.0 x 12.6 Dia.          | 6/C         | 1/A               | 2.1 mm F            | 1.09                                       | .93    | .70   | .65    |
| 151554              | DPJ-026 ⊕      | 15.1 x 8.0 Dia.           | 5/E         | 1/A               | 2.1 mm F            | 1.49                                       | 1.25   | 1.05  | .89    |
| 159611              | PJ1014A ♀      | 35.8 x 12.6 Dia.          | 9/F         | 3/A               | 2.1 mm F            | 1.49                                       | 1.25   | 1.09  | .89    |
| 2.5 mm Male Jacks   |                |                           |             |                   |                     |  |        |       |        |
| 207714              | HEC0470 ⊕      | 11.0 x 9.0 x 14.5         | 1/D         | 1/B               | 2.5 mm F            | \$.45                                      | \$.35  | \$.28 | \$.21  |
| 101186              | PP014A ♀       | 11.0 x 9.0 x 14.5         | 1/D         | 1/A               | 2.5 mm F            | .65  | .58    | .462  | .395   |
| 151563              | DPJ-026A ♀     | 15.1 x 8.0 Dia.           | 5/E         | 1/A               | 2.5 mm F            | 1.49                                       | 1.24   | 1.13  | .99    |
| 159506              | PJ1015A ♀      | 35.8 x 12.6 Dia.          | 9/F         | 3/A               | 2.5 mm F            | 1.39                                       | 1.25   | 1.13  | 1.01   |
| 202358              | HD2388 ⊕       | 17.0 x 12.0 Dia.          | 6/C         | 3/A               | 2.5 mm F            | 1.09                                       | .98    | .88   | .79    |
| 3.5 mm Female Jacks |                |                           |             |                   |                     |  |        |       |        |
| 101143              | PJ0352 ⊕       | 10.0 x 10.0 x 18.5        | 2/E         | 2/A               | 3.5 mm M            | \$.31                                      | \$.276 | \$.18 | \$.163 |
| 109495              | PJ035PM ⊕      | 10.5 x 9.0 x 8.8          | 3/C         | 2/A               | 3.5 mm M            | .45  | .40    | .36   | .32    |
| 165730              | PJ0354 ♀       | 8.9 x 5.7 Dia.            | 8/C         | 3/A               | 3.5 mm M            | .69  | .59    | .49   | .39    |

Jameco ValuePro

## Male &amp; Female Power Plugs

Quantity SAVE

- Use with mating power jacks found in table, above
- Solder eyelets 1mm diameter
- Threaded screw-on housing (strain relief)
- Use with AC/DC wall adapters, pgs 240-243
- Shield crimp tabs
- Use 24 AWG 2 conductor wire, P/N 100280, to make custom length power cables, (pg 104)



| Part Number  | Cross Ref. No. | Description Plug ID x OD (mm) | Dimensions (mm) S x L x ID (strain relief) | Type | Pricing   |       |       |       |
|--------------|----------------|-------------------------------|--|------|---|-------|-------|-------|
|              |                |                               |  |      | 1   | 10    | 100   | 1000  |
| Female Plugs |                |                               |  |      | Blue Plug Part No. = Limited Quantity Available |       |       |       |
| 71192        | PP137♀         | 1.3 x 3.5                     | 9.6 x 43.9 x 4.8 (blk)                     | 1/A  | \$.79   | \$.71 | \$.65 | \$.59 |
| 191484       | PP049W⊕        | 2.1 x 5.5                     | 9.6 x 43.9 x 4.5 (wht)                     | 1/A  | .69   | .62   | .56   | .42   |
| 28760        | PP049♀         | 2.1 x 5.5 (P205)              | 8.5 x 41.4 x 4.6 (blk)                     | 1/A  | .59   | .49   | .39   | .29   |
| 147328       | PP049L⊕        | 2.1 x 5.5 (P205L)             | 14.0 x 46.4 x 4.6 (blk)                    | 1/A  | .69   | .62   | .56   | .50   |
| 138587       | PJ021R⊕        | 2.1 x 5.5 rt. angle           | 12.0 x 22.5 x 3.9 (blk)                    | 1/B  | .79   | .63   | .55   | .49   |
| 190538       | PP109S♀        | 2.5 x 5.5 (P206S)             | 9.0 x 43.5 x 4.8 (blk)                     | 1/A  | .39   | .32   | .29   | .19   |
| 28768        | PP109♀         | 2.5 x 5.5 (P206)              | 10.1 x 45.4 x 4.3 (blk)                    | 1/A  | .59   | .49   | .39   | .33   |
| 147336       | PP109L⊕        | 2.5 x 5.5 (P206L)             | 13.6 x 47.5 x 4.8 (blk)                    | 1/A  | .75   | .68   | .54   | .41   |
| 168242       | PP109N♀        | 2.5 x 5.5                     | 13.7 x 36.5 x 3.9 (blk)                    | 1/C  | .59   | .49   | .43   | .35   |
| Male Plugs   |                |                               |  |      | SALE  |       |       |       |
| 101135       | PJ1025⊕        | 2.5 (P201)                    | 11.1 x 49.0 x 4.3 (blk)                    | 2/A  | \$.59   | \$.53 | \$.39 | \$.29 |
| 101152       | PJ1035♀        | 3.5 (P202)                    | 13.8 x 51.8 x 4.2 (blk)                    | 2/A  | .49   | .38   | .35   | .29   |

## Automobile Power Plug &amp; Cord Assembly

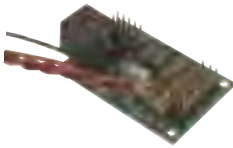
- Screw assembly with strain relief
- Accepts .25" x 1.25" fuse



| Part No. | Description                                 | 1      | 10     | 100    |
|----------|---|--------|--------|--------|
| 115002   | W/ 5A/250VAC fuse ♀                         | \$.195 | \$1.65 | \$1.19 |
| 124760   | W/ 3A/250VAC fuse & 3' cord (pigtail end) ♀ | 1.89   | 1.72   | 1.69   |

## Scott Edwards Electronics, Inc. Serial Servo Controller Module

- Controls 8 pulse-proportional servos
- Receives serially at 2400 or 9600 baud
- Module is addressable, allowing two units to share the same line to control a total of 16 servos
- Connections to serial input can be established using a modular jack (P/N 115553, pg 110) or modular adapter from DB9 to RJ11 (P/N 114738, pg 110)
- Size (PCB): 1.9"L x 1.4"W • One-year warranty



| Part No. | Description   | 1       | 10      |
|----------|---|---------|---------|
| 151001   | Mini SSC II  | \$43.95 | \$41.79 |

## 32-Bit Stepper Motor Controller

### One Axis

- Controls one bipolar stepper motor with 32-bit absolute position
- Interface to PC through RS232 or RS485 @ 2400-19,200bps
- Full, half or wave step modes
- Multiple boards may share same serial line (RS485 only)
- 2 channel general purpose 8-bit A/D input port for reading 0 to 5V
- 4-bit digital input for home limits
- Addressable up to 255 boards
- Size: 4.4"L x 2.3"H
- Weight: 0.7 lbs.



**DPONTECH**

Includes: Manual and sample code software

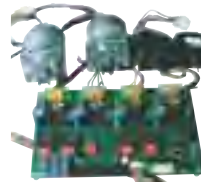
| Part No. | Description   | 1        | 10       |
|----------|---|----------|----------|
| 153621   | 32-bit controller  | \$158.95 | \$150.99 |

See our extensive motor selection on pages 164-168.



## Multi-Stepper Motor Control Board

- Simultaneous/independent control of up to 16 stepper motors through a single serial port
- High-speed serial communication interface 9.6kbps-230.4kbps
- 11 analog channels, A/D converter, 12-bit resolution
- 24-bit position register; can be read while motor is moving
- Linear acceleration/deceleration capability up to 8500 step/sec. • Size: 7.7"L x 5.0"W x 1.0"H
- Full step (monophasic and biphasic), half step and external driver modes
- Current-mode coil driver up to 2A/45V
- Automatic power down prevents motor overheating
- External driver control outputs: step, direction and power control • Weight: 0.7 lbs.
- 26 digital I/O and two SPI interfaces for control of external devices
- 32 bits DDL interface for Windows® 9X, NT & Linux
- Internal FIFO RAM (128 bytes) allows customized motion profiles

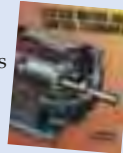


Shown w/ motors - not included

| Part No. | Description                    | 1        | 10       |
|----------|--------------------------------|----------|----------|
| 168727   | Stepper motor control brd .... | \$399.95 | \$379.95 |

## Electric Motors & Control Techniques

**TAB Publishing** Explains how different types of motors operate, and how electronic control devices can be used to improve efficiency in a wide range of applications. (294 pages, 1994)



- Size: 7.3" x 9.2" • Weight: 1.1 lbs.

| Part No. | Description               | Price   |
|----------|---------------------------|---------|
| 137162   | Electric Motors & Control | \$24.95 |

## Sport232-ST One Axis Stepper Motor Controller and DAC Boards

- Shaft encoder capabilities for close loop applications
- Home, limit CW/CCW, abort, pulse and direction output signals
- 4-channels with signal conditioning 0 to 2.5V, 0 to 10V
- Linear acceleration/deceleration, profile movements through 128 bytes internal FIFO
- Full, half steps (monophasic, bi-phasic) 355047
- 8 Digital I/O and 8 analog inputs with 12-bit resolution
- Free 32-bit DLL for Windows 9x/NT/2000/XP, Linux and Labview



| Part No. | Description  | 1        | 10       |
|----------|--|----------|----------|
| 355047   | Sport232-ST   | \$147.25 | \$137.75 |
| 1537344  | Sport232-ST1  | 247.99   | 237.99   |




## RMV856-ET Stepper Motor Controller

- CMOS, +5V device combines high performance with low cost
- Capable of generating step rates from 16 steps/sec to 8500 steps/sec using pulse and direction signals
- Internal step register counts up to 16 million steps per motion
- 8 Digital I/Os can be addressed individually by one command
- External programmable events: trigger waits, loops, program branches and stepping motions
- Supports programmable start rate, accel/decel, slew rate and absolute or relative control position
- Programmable stall detection feature controls positioning error • Internal or external direction control and separate limit switch for interfacing analog to digital or digital to analog converter



**SALE**

| Part No. | Package   | 1       | 10      | 50      |
|----------|---|---------|---------|---------|
| 355266   | PLCC-44  | \$40.25 | \$36.55 | \$33.22 |

## KAE

## Industrial Motion Controllers for Brush, Brushless and Stepper Motors

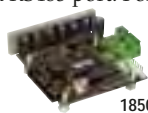
All JR Kerr Automation Engineering controllers include integrated power amplifiers. Up to 32 controllers can be daisy-chained from a single full-duplex RS485 port. For RS-232 to RS-485 adapter see P/N 184971 (below).



184989



323942



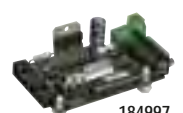
185009



323951



184971



184997

### 184989/323942: PIC-SERVO motor control board

- For brush-type DC motors with 2 or 3 channel incremental encoders
- P.I.D. Servo control, trapezoidal position profiling, velocity mode, 32-bit resolution
- Integrated 12 to 48VDC supply power amplifier @ 3A continuous, 6A peak
- Limit switch inputs, general purpose analog input, PWM, DIR output for use with external amps
- P/N 323942 RS485 serial interface allows up to 32 PIC-SERVO controllers to be controlled from a single serial port

### 185009/323951: PIC-SERVO 3PH motor control board for brush or brushless motors

- For 3-phase brushless motors with hall effect sensors or conventional DC brush-type motors
- High current amplifier: 7A continuous, 10A peak, 12 to 48VDC supply
- Same features as 184989 above but with support for linear & circular interpolation using the PIC-SERVO CMC chipset
- P/N 323951 Amplifier capable of driving 6A continuously @ up to 48VDC

### 184971: Z232-485 serial port adapter

- Lets you operate the controllers above from any standard RS-232 port

### 184997: PIC-STEP motor control board

- Integrated indexer and driver for 2 or 4 phase stepper motors
- Full/half step bipolar chopper drive, 2A per phase, 7.5 to 46VDC supply
- Trapezoidal position profiling, velocity mode, up to 50,000 steps per second
- Limit switch inputs, general purpose outputs, step/dir outputs for use with external drivers

| Part No. | Description       | Size (L" x W" x H") | 1        | 10       |
|----------|-------------------|---------------------|----------|----------|
| 184989   | PIC-SERVO         | 3.1 x 2.1 x 0.9     | \$184.69 | \$166.25 |
| 323942   | KAE-TOVIO         | 3.1 x 2.1 x 0.9     | 159.95   | 143.95   |
| 185009   | KAE-TOV5-BD3-PHV1 | 3.1 x 3.1 x 1.0     | 271.79   | 244.69   |
| 323951   | KAE-TOVIO         | 3.1 x 3.1 x 0.9     | 227.85   | 205.95   |
| 184971   | Z232-485          | 3.1 x 2.1 x 0.5     | 59.95    | 53.95    |
| 184997   | PIC-STEP          | 3.1 x 2.1 x 0.9     | 159.95   | 143.95   |

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Find products quickly and order them easily.

JAMECO ReliaPro

A Jameco  
EXCLUSIVE

## Bipolar and Unipolar Stepper Motors

**SALE**

Quantity SAVE

Jameco offers the industry's widest variety of off-the-shelf two-phase bipolar and four-phase unipolar stepper motors for your precision applications. Be sure to check out the wide selection of 2 to 200 VDC models below.

- Ball bearings
- Dielectric strength: 500V, 50Hz/minute
- 18" lead wires
- Ambient temp.: -10°C to +55°C
- Insulation resistance: 100MΩ @ 500VDC
- Use P/N 161998, pg 315, for shaft coupler

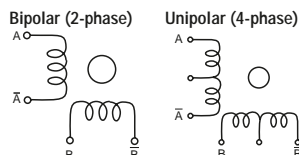


Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6

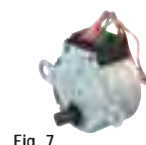


Fig. 7



Fig. 8



Fig. 9

| Part No. | Cross Ref. No. | Fig. | Drive System | Voltage (VDC) | Step Angle | Phase Resis. (Ohms) | Curr. (mA) | Phase Inductance (mH) | Detent Torque (g-cm) | Holding Torque (g-cm) | Mounting Hole Space Diagonal (in.) | Mounting Holes (in.) | Shaft Dia. (in.) | Shaft Length (in.) | Motor Dia. (in.) | Motor Depth (in.) | Wt. (lbs.) | Pricing |         |         |
|----------|----------------|------|--------------|---------------|------------|---------------------|------------|-----------------------|----------------------|-----------------------|------------------------------------|----------------------|------------------|--------------------|------------------|-------------------|------------|---------|---------|---------|
|          |                |      |              |               |            |                     |            |                       |                      |                       |                                    |                      |                  |                    |                  |                   |            | 1       | 10      | 50      |
| 237526   | 42BYGH001      | 3    | Bipolar      | 2             | 1.8        | 2.1                 | 950        | 2.3                   | 200                  | 1700                  | 1.22                               | 0.10                 | 0.20             | 0.95               | 1.67             | 1.34              | 0.50       | \$19.79 | \$16.82 | \$12.62 |
| 237497   | 39BYG101-01    | 2    | Bipolar      | 2.7           | 1.8        | 6.8                 | 400        | 6.5                   | 150                  | 650                   | 1.22                               | 0.10                 | 0.20             | 0.75               | 1.54             | 0.79              | 0.26       | 15.95   | 13.55   | 10.16   |
| 237489   | 39BYG001       | 2    | Bipolar      | 5             | 1.8        | 5                   | 1000       | —                     | 150                  | 1800                  | 1.22                               | 0.10                 | 0.20             | 0.91               | 1.54             | 1.34              | 0.44       | 15.95   | 13.55   | 10.92   |
| 237577   | 57BYG061       | 4    | Bipolar      | 6             | 1.8        | 12                  | 500        | 24                    | —                    | 3569                  | 1.86                               | 0.20                 | 0.25             | 0.83               | 2.29             | 1.61              | 1.00       | 29.95   | 25.45   | 20.99   |
| 237518   | 42BYG017       | 2    | Bipolar      | 6.3           | 1.8        | 15                  | 420        | 16                    | 150                  | 1400                  | 1.22                               | 0.10                 | 0.20             | 0.51               | 1.67             | 1.34              | 0.50       | 17.35   | 14.95   | 11.21   |
| 395567   | 42BYG022-40*   | 3    | Bipolar      | 9.6           | 1.8        | 100                 | 240        | 46                    | —                    | 1100                  | 1.70                               | 0.90                 | 0.20             | 0.26               | 1.67             | 1.29              | 0.43       | 16.95   | 14.41   | 10.81   |
| 155459   | 42BYG023*      | 2    | Bipolar      | 12            | 1.8        | 30                  | 400        | 36                    | 220                  | 2100                  | 1.73                               | 0.10                 | 0.20             | 0.60               | 1.70             | 1.30              | 0.50       | 17.95   | 16.29   | 14.59   |
| 237471   | 39BYG401A      | 2    | Bipolar      | 12            | 1.8        | 30                  | 400        | 32                    | 200                  | 2100                  | 1.22                               | 0.10                 | 0.20             | 0.95               | 1.54             | 1.34              | 0.44       | 19.49   | 16.56   | 12.42   |
| 237462   | 39BYG401       | 2    | Bipolar      | 14            | 1.8        | 31                  | 400        | 32                    | 200                  | 2300                  | 1.22                               | 0.10                 | 0.20             | 0.95               | 1.54             | 1.34              | 0.44       | 15.95   | 14.50   | 12.42   |
| 237447   | 35BYG008       | 2    | Bipolar      | 24            | 1.8        | 1.3                 | 1600       | 1                     | 1                    | 900                   | 1.02                               | 0.10                 | 0.20             | 0.83               | 1.38             | 1.14              | 0.33       | 13.95   | 11.86   | 10.48   |
| 237569   | 57BYG009       | 4    | Unipolar     | 2.4           | 1.8        | 1                   | 2400       | 1.5                   | —                    | 5914                  | 1.86                               | 0.20                 | 0.25             | 0.83               | 2.29             | 2.20              | 1.40       | 32.29   | 27.45   | 20.58   |
| 237614   | 57BYGH801      | 6    | Unipolar     | 3.3           | 1.8        | 2.2                 | 1500       | 22                    | —                    | 5608                  | 1.86                               | 0.20                 | 0.25             | 0.83               | 2.24             | 2.01              | 1.32       | 35.19   | 31.69   | 28.49   |
| 237534   | 42BYGH102      | 5    | Unipolar     | 3.6           | 1.8        | 3                   | 1200       | 3.2                   | 220                  | 3000                  | 1.22                               | 0.10                 | 0.20             | 0.95               | 1.67             | 1.57              | 0.50       | 17.95   | 15.29   | 11.45   |
| 237551   | 57BYG008       | 4    | Unipolar     | 4             | 1.8        | 3.1                 | 1300       | 4.4                   | —                    | 4996                  | 1.86                               | 0.20                 | 0.25             | 0.83               | 2.29             | 2.01              | 1.30       | 29.95   | 26.95   | 24.25   |
| 237593   | 85BYGH450      | 6    | Unipolar     | 4.4           | 1.8        | 2.2                 | 2000       | —                     | —                    | 21414                 | 2.76                               | 0.26                 | 0.51             | 1.38               | 3.35             | 2.95              | 4.90       | 161.95  | 137.65  | 103.24  |
| 237622   | 57BYGH802      | 6    | Unipolar     | 4.8           | 1.8        | 3.2                 | 1500       | 2.9                   | —                    | 8157                  | 1.86                               | 0.20                 | 0.25             | 0.83               | 2.24             | 2.20              | 1.54       | 37.69   | 32.04   | 24.03   |
| 237606   | 57BYGH001      | 6    | Unipolar     | 5             | 1.8        | 5                   | 1000       | —                     | —                    | 3976                  | 1.86                               | 0.20                 | 0.25             | 0.83               | 2.24             | 1.61              | 1.10       | 32.49   | 27.61   | 20.70   |
| 237825   | 25BY4801       | 7    | Unipolar     | 5             | 7.5        | 10                  | 500        | —                     | 45                   | 110                   | 1.38                               | 0.14                 | 0.08             | 0.35               | 0.98             | 0.56              | 0.07       | 5.95    | 4.95    | 4.43    |
| 237673   | 35BY48B06      | 1    | Unipolar     | 5             | 7.5        | 10                  | 500        | 65                    | 65                   | 250                   | 1.65                               | 0.13                 | 0.08             | 0.45               | 1.38             | 0.59              | 0.15       | 6.49    | 5.79    | 4.59    |
| 237738   | 42BY48H08      | 8    | Unipolar     | 5             | 7.5        | 9.1                 | 550        | —                     | 130                  | 630                   | 1.95                               | 0.14                 | 0.12             | 0.39               | 1.65             | 0.87              | 0.28       | 7.89    | 7.09    | 6.39    |
| 223870   | 57BYG070       | 4    | Unipolar     | 5.4           | 1.8        | 3.6                 | 1500       | 6                     | 977                  | 8974                  | 2.65                               | 0.20                 | 0.25             | 0.80               | 2.20             | 2.20              | 2.00       | 49.95   | 42.45   | 31.83   |
| 237631   | 57BYGH803      | 6    | Unipolar     | 6.3           | 1.8        | 4.2                 | 1500       | —                     | —                    | 14276                 | 1.86                               | 0.20                 | 0.25             | 0.83               | 2.24             | 2.99              | 2.43       | 64.59   | 54.90   | 41.17   |
| 172646   | 42BYG205       | 4    | Unipolar     | 9.6           | 1.8        | 75                  | 480        | 15                    | 220                  | 2300                  | 1.73                               | 0.10                 | 0.20             | 0.90               | 1.70             | 1.40              | 0.50       | 17.95   | 16.19   | 14.55   |
| 224021   | 42BYG016       | 2    | Unipolar     | 12            | 1.8        | 75                  | 160        | 40                    | 150                  | 900                   | 1.73                               | 0.10                 | 0.20             | 0.70               | 1.70             | 1.30              | 0.50       | 16.95   | 14.40   | 10.80   |
| 155432   | 42BYG228       | 2    | Unipolar     | 12            | 1.8        | 30                  | 400        | 23                    | 220                  | 2000                  | 1.73                               | 0.10                 | 0.20             | 0.90               | 1.70             | 1.50              | 0.50       | 17.95   | 16.29   | 14.59   |
| 237542   | 57BYG007       | 4    | Unipolar     | 12            | 1.8        | 32                  | 380        | 30                    | —                    | 2957                  | 1.86                               | 0.20                 | 0.25             | 0.83               | 2.29             | 1.61              | 1.00       | 25.95   | 23.16   | 17.93   |
| 238537   | 42BYGH404      | 5    | Unipolar     | 12            | 1.8        | 30                  | 400        | 25                    | 250                  | 3200                  | 1.22                               | 0.10                 | 0.20             | 0.95               | 1.67             | 1.89              | 0.60       | 19.95   | 17.95   | 16.15   |
| 162026   | 57BYG084       | 4    | Unipolar     | 12            | 1.8        | 20                  | 600        | 22                    | 725                  | 6000                  | 2.65                               | 0.20                 | 0.25             | 1.00               | 2.20             | 2.00              | 1.30       | 26.95   | 24.29   | 21.85   |
| 237892   | 42BY48B03      | 8    | Unipolar     | 12            | 7.5        | 57                  | 210        | 18                    | 105                  | 300                   | 2.28                               | 0.08                 | 0.12             | 0.30               | 1.65             | 0.58              | 0.21       | 6.75    | 6.25    | 6.19    |
| 173180   | 30BYJ02AH**    | 7    | Unipolar     | 12            | 7.5        | 200                 | 60         | 49.5                  | 400                  | 736                   | 1.42                               | 0.14                 | 0.19             | 0.36               | 1.18             | 0.68              | 0.10       | 12.05   | 10.25   | 7.68    |
| 237438   | 35BYG007       | 5    | Unipolar     | 15            | 1.8        | 28                  | 400        | —                     | 12                   | 70                    | 1.02                               | 0.10                 | 0.20             | 0.83               | 1.38             | 1.10              | 0.37       | 13.95   | 11.86   | 10.48   |
| 238115   | 35BY48B08      | 1    | Unipolar     | 24            | 7.5        | 75                  | 320        | 38                    | 65                   | 270                   | 1.65                               | 0.13                 | 0.08             | 0.35               | 1.38             | 0.59              | 0.15       | 6.19    | 5.68    | 5.17    |
| 237729   | 42BY48H07      | 8    | Unipolar     | 24            | 7.5        | 85                  | 280        | 78                    | 130                  | 780                   | 1.95                               | 0.14                 | 0.12             | 0.39               | 1.65             | 0.87              | 0.27       | 7.89    | 6.71    | 6.20    |
| 237585   | 110BYG450C     | 4    | Unipolar     | 80-200        | 0.9/1.8    | 0.18                | 6000       | 2                     | 3060                 | 45,900                | 5.0                                | 0.33                 | 0.63             | 2.13               | 4.33             | 5.10              | 8.40       | 123.85  | 112.59  | 102.35  |

\* 395567/155459: Dual shaft

\*\* 173180: Gear ratio 85.25:1

## Other Manufacturers — Great Deals



| Part No. | Cross Ref. No.         | Drive System | Volt. (VDC) | Step Angle | Phase Resis. (Ohms) | Curr. (mA) | Phase Inductance (mH) | Detent Torque (g-cm) | Holding Torque (g-cm) | Mounting Hole Space Diagonal (in.) | Mounting Holes (in.) | Shaft Dia. (in.) | Shaft Length (in.) | Motor Dia. (in.) | Motor Depth (in.) | Pricing |        |        |
|----------|------------------------|--------------|-------------|------------|---------------------|------------|-----------------------|----------------------|-----------------------|------------------------------------|----------------------|------------------|--------------------|------------------|-------------------|---------|--------|--------|
|          |                        |              |             |            |                     |            |                       |                      |                       |                                    |                      |                  |                    |                  |                   | 1       | 10     | 50     |
| 117954   | LB82773-M1             | Bipolar      | 5           | 7.5        | 6                   | 800        | 7                     | 100                  | 1080                  | 2.60                               | 1.95                 | 0.250            | 0.75               | 2.25             | 1.00              | \$4.29  | \$3.89 | \$3.09 |
| 163395   | 5017-935 <sup>1</sup>  | Bipolar      | 8.4         | 0.9        | 30                  | 280        | 25                    | 36                   | 791                   | 1.73                               | 0.15                 | 0.155            | 0.29               | 1.64             | 1.20              | 5.59    | 4.79   | 3.59   |
| 454475   | 41118S-62-07           | Bipolar      | 24          | 1.8        | 0.6                 | 2500       | .93                   | —                    | 3240                  | —                                  | —                    | 0.190            | 0.50               | 1.67             | 1.34              | 27.95   | 25.16  | 22.64  |
| 454467   | 4218L-01-11            | Bipolar      | 24          | 1.8        | 1.2                 | 2000       | 2                     | —                    | 5401                  | —                                  | —                    | 0.190            | 0.50               | 1.67             | 1.83              | 19.95   | 17.96  | 16.16  |
| 171601   | PF35T48L4 <sup>2</sup> | Unipolar     | 7           | 7.5        | 20                  | 350        | 9                     | 40                   | 680                   | 1.68                               | 0.14                 | 0.078            | 0.47               | 1.38             | 0.58              | 4.99    | 4.49   | 4.03   |

<sup>1</sup> 163395: Dual shaft <sup>2</sup> 171601: Dual shaft w/ 10 tooth gear

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



## High-Efficiency Robotic Servo

Excellent power-to-weight ratio for robotic projects.

- Supply voltage: 4.8-6 volts
- Speed: 16 seconds to 60°
- Torque: 49 oz.-in. (3500 g-cm) @ 4.8V
- Can be operated by P/N 151001, pg 163



| Part No. | Description   | Size                  | 1       | 10      |
|----------|---------------|-----------------------|---------|---------|
| 157067   | Robotic servo | 0.8"W x 1.4"D x 1.6"H | \$19.95 | \$17.95 |

## Giant Robotic Ball-Bearing Servo

Extremely powerful! Perfect for large robotic projects where power is a must.

- Supply voltage: 4.8-6 volts
- Speed: 1.9 seconds to 60°
- Torque: 161 oz.-in. (11,500 g-cm) @ 4.8V
- Can be operated by P/N 151001, pg 163



| Part No. | Description         | Power Supply | 1       | 10      |
|----------|---------------------|--------------|---------|---------|
| 166351   | Giant robotic servo | 4.8-6 volts  | \$44.95 | \$42.69 |

## DC Motors

JAMECO ReliaPro

## 1.5-112VDC Motors

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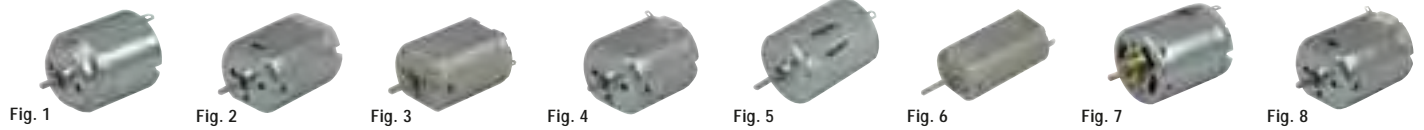
**Typical applications:**

- RC cars and airplanes
- Arcade games
- Vending machines
- Office automation products
- Motorized toys
- Vacuum cleaners
- Hair removers
- Blow dryers
- Tire pumps
- Paper shredders
- Cordless power tools
- Christmas trees



SALE

Quantity SAVE



## Nichibo-Type

| Part No. | Product No.    | Fig. | Nominal Voltage (VDC) | Voltage Range (VDC) | @ Maximum Efficiency |             |               | Efficiency | Terminal Type | Shaft Dia. (") | Shaft Length (") | Body Size (in) Dia. x Depth | Pricing |        |        |
|----------|----------------|------|-----------------------|---------------------|----------------------|-------------|---------------|------------|---------------|----------------|------------------|-----------------------------|---------|--------|--------|
|          |                |      |                       |                     | Current (Amps)       | Speed (RPM) | Torque (g-cm) |            |               |                |                  |                             | 1       | 10     | 100    |
| 231917   | FE-260-2670    | 1    | 1.5                   | 1.5-3               | 0.66                 | 3700        | 10.5          | 42.9       | Solder        | 0.078          | 0.314            | 0.937 x 1.063               | \$1.19  | \$1.01 | \$0.83 |
| 231909   | FE-260-18130   | 1    | 3                     | 1.5-4.5             | 0.36                 | 4780        | 10.3          | 49.6       | Solder        | 0.078          | 0.314            | 0.937 x 1.063               | 1.19    | 1.01   | .83    |
| 231925   | FE-260-2295    | 1    | 3                     | 1.5-4.5             | 0.63                 | 6850        | 14            | 53.9       | Solder        | 0.078          | 0.314            | 0.937 x 1.063               | 1.19    | 1.07   | .95    |
| 231829   | PC-280-16210   | 2    | 6                     | 3-12                | 0.28                 | 4260        | 18            | 47.6       | Solder        | 0.078          | 0.433            | 0.944 x 1.200               | 1.75    | 1.56   | 1.40   |
| 231781   | PC-130F-12240  | 3    | 6                     | 3-9                 | 0.25                 | 6800        | 7             | 33.4       | Solder        | 0.078          | 0.377            | 0.803 x 0.984               | 2.49    | 2.12   | 1.59   |
| 231992   | UC-260-18160   | 4    | 6                     | 3-9                 | 0.57                 | 7460        | 22.1          | 49.9       | Solder        | 0.078          | 0.314            | 0.944 x 1.063               | 1.79    | 1.52   | 1.14   |
| 232063   | FC-280-20120   | 5    | 6                     | 4.5-9               | 0.60                 | 7800        | 24.1          | 53.5       | Solder        | 0.078          | 0.472            | 0.944 x 1.200               | 1.25    | 1.15   | 1.02   |
| 232143   | FF-050S-11170  | 6    | 7                     | 1.5-9               | 0.17                 | 8500        | 7             | 51.3       | Solder        | 0.059          | 0.433            | 0.610 x 1.059               | 2.99    | 2.54   | 1.91   |
| 232012   | MD5-12160      | 7    | 12                    | 12-24               | 0.30                 | 4000        | 34.3          | 39.1       | Solder        | 0.091          | 0.622            | 1.082 x 1.279               | 2.25    | 1.91   | 1.43   |
| 231731   | PC-130SF-09480 | 3    | 12                    | 6-24                | 0.11                 | 4800        | 12.3          | 49.6       | Solder        | 0.078          | 0.377            | 0.803 x 0.984               | 2.09    | 1.78   | 1.33   |
| 231896   | FE-260-08450   | 1    | 12                    | 6-12                | 0.11                 | 5560        | 10.3          | 46.6       | Solder        | 0.078          | 0.314            | 0.937 x 1.063               | 1.19    | 1.01   | .85    |
| 232004   | UC-280S-19160  | 8    | 12                    | 6-12                | 0.57                 | 9000        | 46.6          | 63.4       | Solder        | 0.078          | 0.433            | 0.944 x 1.200               | 2.55    | 2.17   | 1.62   |
| 232021   | MD5-1885       | 7    | 12                    | 6-18                | 0.74                 | 9820        | 53.5          | 60.7       | Solder        | 0.091          | 0.622            | 1.082 x 1.279               | 2.25    | 1.99   | 1.79   |
| 231950   | UC-280S-20145  | 8    | 12                    | 6-12                | 0.75                 | 10000       | 55            | 64.0       | Solder        | 0.078          | 0.433            | 0.944 x 1.200               | 2.55    | 2.29   | 2.09   |
| 232039   | MD5-2070       | 7    | 12                    | 6-12                | 1.20                 | 12150       | 62.2          | 54.1       | Solder        | 0.091          | 0.622            | 1.082 x 1.279               | 2.25    | 1.91   | 1.57   |
| 232127   | MD5-2554AS-AA  | 9    | 12                    | 6-12                | 1.70                 | 17000       | 72.9          | 62.4       | Quick Connect | 0.091          | 0.512            | 1.083 x 1.279               | 2.15    | 1.95   | 1.77   |
| 232119   | MD5-2450AS-AA  | 9    | 12                    | 6-12                | 2.00                 | 17200       | 77.5          | 55.9       | Quick Connect | 0.091          | 0.512            | 1.083 x 1.279               | 2.19    | 1.99   | 1.81   |
| 232047   | MD5-2445       | 7    | 12                    | 6-12                | 2.05                 | 19850       | 79.7          | 66.0       | Solder        | 0.091          | 0.622            | 1.082 x 1.279               | 2.25    | 1.91   | 1.43   |
| 231941   | UC-280S-12285  | 8    | 24                    | 12-24               | 0.39                 | 10300       | 54.4          | 62.4       | Solder        | 0.078          | 0.433            | 0.944 x 1.200               | 2.25    | 2.02   | 1.85   |
| 232101   | MD5-1980AS-AA  | 9    | 24                    | 12-24               | 1.43                 | 22600       | 88.5          | 60.9       | Solder        | 0.091          | 0.512            | 1.083 x 1.279               | 4.29    | 3.64   | 2.73   |

## Mabuchi-Type

|        |                      |    |     |        |      |      |      |      |        |       |       |               |        |        |        |
|--------|----------------------|----|-----|--------|------|------|------|------|--------|-------|-------|---------------|--------|--------|--------|
| 238465 | RF-310TA-11400 (CCW) | 10 | 2.5 | 1-6    | 0.06 | 2190 | 3.3  | —    | Solder | 0.078 | 0.247 | 0.962 x 0.712 | \$2.49 | \$2.12 | \$1.59 |
| 238457 | RF-300PA-11400 (CW)  | 11 | 3   | 1-3    | 0.07 | 2400 | 4.3  | 56.4 | Wires  | 0.078 | 0.200 | 0.960 x 0.504 | 4.35   | 3.89   | 3.49   |
| 238511 | RF-500TB-12560       | 12 | 6   | 1.5-12 | 0.08 | 2180 | 11.6 | 50.6 | Solder | 0.078 | 0.385 | 1.259 x 0.767 | 4.49   | 3.82   | 2.86   |
| 238449 | EG-530AD-9B (CCW)    | 13 | 9   | 6-11   | 0.09 | 2400 | 8    | —    | Solder | 0.078 | 0.307 | 1.377 x 0.984 | 4.69   | 3.99   | 2.99   |
| 238473 | RF-370CA-15370       | 14 | 12  | 3-12   | 0.17 | 4840 | 187  | —    | Solder | 0.078 | 0.346 | 0.960 x 1.213 | 5.55   | 4.72   | 3.54   |
| 238414 | EG-530AD-2B (CCW)    | 13 | 12  | 8.4-15 | 0.07 | 2400 | 60   | —    | Solder | 0.078 | 0.307 | 1.377 x 0.953 | 4.49   | 3.82   | 2.86   |
| 238406 | EG-530AD-2F (CW)     | 13 | 12  | 8.4-15 | 0.07 | 2400 | 60   | —    | Solder | 0.078 | 0.307 | 1.377 x 0.953 | 5.39   | 4.58   | 3.44   |

## Hi-Torque

|        |          |    |      |      |      |       |     |   |               |       |       |               |        |        |        |
|--------|----------|----|------|------|------|-------|-----|---|---------------|-------|-------|---------------|--------|--------|--------|
| 237391 | 29SYT003 | 15 | 13.5 | 13.5 | 13   | 18000 | 509 | — | Quick Connect | 0.125 | 1.003 | 1.141 x 2.283 | \$5.95 | \$5.05 | \$3.93 |
| 237382 | 29SYT002 | 15 | 24   | 24   | 0.93 | 2680  | 178 | — | Wire          | 0.100 | 0.334 | 0.787 x 1.89  | 7.19   | 6.11   | 4.58   |
| 237403 | 40SYT002 | 16 | 26   | 26   | 1.5  | 3000  | 815 | — | Quick Connect | 0.196 | 1.021 | 1.57 x 3.85   | 25.95  | 23.35  | 20.99  |

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## 1.2VDC-24VDC Motors



star motor



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| Part No. | Product No.    | Manufacturer     | Nominal Voltage (VDC) | Voltage Range (VDC) | @ Maximum Efficiency |             |               | Efficiency | Terminal Type    | Shaft Dia. (in.) | Shaft Length (in.) | Size (in.) (Dia. x Depth) | Pricing |        |        |
|----------|----------------|------------------|-----------------------|---------------------|----------------------|-------------|---------------|------------|------------------|------------------|--------------------|---------------------------|---------|--------|--------|
|          |                |                  |                       |                     | Current (Amps)       | Speed (RPM) | Torque (g-cm) |            |                  |                  |                    |                           | 1       | 10     | 100    |
| 154915   | ST-130-12240   | Star Motor       | 3                     | 1.5-3               | 0.170                | 3588        | 7.4           | 55         | 0.09"/solder     | 0.08             | 0.37               | 0.79 x 1.13               | \$1.29  | \$1.16 | \$0.86 |
| 154923   | ST-130-22770   | Star Motor       | 3                     | 1.5-3               | 1.150                | 12500       | 10.3          | 40         | 0.09"/solder     | 0.08             | 0.37               | 0.79 x 1.13               | .99     | .89    | .66    |
| 211246   | RC-260RA-2670  | Mabuchi Motor    | 4.5                   | 3-4.5               | 1.430                | 15290       | 21.8          | 53         | 0.11"/solder     | 0.08             | 0.28               | 0.93 x 1.06               | .79     | .67    | .50    |
| 388851   | RF-500TB-14415 | Mabuchi Motor    | 5                     | 1.5-9               | 0.120                | 2540        | 12.6          | —          | 0.07"/solder     | 0.07             | 0.34               | 1.26 x 0.97               | 3.99    | 3.39   | 2.54   |
| 177498   | RC280RA-2485   | Mabuchi Motor    | 7.2                   | 3-14                | 1.180                | 14260       | 33.3          | 57         | 11"/solder       | 0.08             | 0.43               | 0.95 x 1.20               | 1.75    | 1.48   | 1.11   |
| 174692   | 21226-384221   | Johnson Electric | 12                    | 9-14                | 0.015                | 3000        | —             | —          | 0.11"/solder     | 0.08             | 0.69               | 0.97 x 1.19               | 2.49    | 2.25   | 1.67   |
| 206949   | QJT360S14280   | Nichibo          | 12                    | 9-30                | 0.350                | 4930        | 44.5          | 52         | 0.11"/solder     | 0.09             | 0.45               | 1.09 x 1.30               | 1.69    | 1.52   | 1.36   |
| 667411   | RF270RH-12370  | Mabuchi Motor    | 12                    | 6-15                | 0.140                | 5130        | 19.2          | —          | .08"/quick conn. | 0.08             | 0.59               | 0.96 x 1.21               | 2.95    | 2.65   | 1.99   |
| 153656   | RS550PF        | Mabuchi Motor    | 12                    | 6-15                | 1.400                | 6500        | 44.1          | —          | 0.15"/solder     | 0.13             | 0.66               | 1.45 x 2.25               | 3.29    | 2.99   | 2.69   |
| 267291   | SUN-555A-LMRK  | Telco            | 24                    | —                   | 0.150                | 4100        | 84            | —          | Wire w/ conn.    | 0.13             | 0.40               | 1.45 x 2.25               | 2.99    | 2.54   | 1.91   |

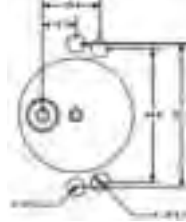
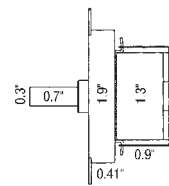
1 154915/154923: Use bushing P/N 162392, pg 315

2 Manufacturer may vary



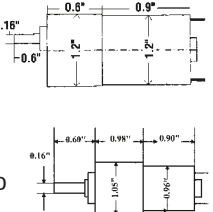
## 6VDC and 12VDC Reversible Gear Head Motors

- Solder-type terminal
- High torque construction
- Oil bearing design for long service life
- Insulation resistance: 10MΩ
- Dielectric strength: 300VDC



GH30GM Series

HN27GD Series



Quantity SAVE

| Part No. | Cross Ref. No. | Rated Voltage (VDC) | @ Maximum Efficiency |             |               | Gear Ratio | Gear Case Size Dia. x Height (in.) | Motor Size Dia. x Depth (in.) | Shaft Size Dia. x Length (in.) | Pricing |         |         |
|----------|----------------|---------------------|----------------------|-------------|---------------|------------|------------------------------------|-------------------------------|--------------------------------|---------|---------|---------|
|          |                |                     | Current (mA)         | Speed (RPM) | Torque (g-cm) |            |                                    |                               |                                | 1       | 10      | 50      |
| 253403   | 32-009         | 6                   | 64                   | 2.7         | 2500          | 450:1      | 1.9 x 0.41                         | 1.3 x 0.90                    | 0.3 x 0.7                      | \$17.95 | \$15.25 | \$11.43 |
| 253374   | 32-006         | 6                   | 51                   | 4           | 1680          | 300:1      | 1.9 x 0.41                         | 1.3 x 0.90                    | 0.3 x 0.7                      | 17.95   | 15.25   | 11.43   |
| 253340   | 32-005         | 6                   | 48                   | 5           | 1600          | 240:1      | 1.9 x 0.41                         | 1.3 x 0.90                    | 0.3 x 0.7                      | 17.95   | 16.15   | 14.55   |
| 253307   | 32-002         | 6                   | 38                   | 8           | 1200          | 150:1      | 1.9 x 0.41                         | 1.3 x 0.90                    | 0.3 x 0.7                      | 17.95   | 15.25   | 11.43   |
| 253228   | 32-001         | 6                   | 35                   | 24          | 450           | 50:1       | 1.9 x 0.41                         | 1.3 x 0.90                    | 0.3 x 0.7                      | 17.95   | 16.15   | 14.55   |

### HN27GD Series

| Part No. | Cross Ref. No. | Rated Voltage (VDC) | Operating Range (VDC) | @ Maximum Efficiency |             |               | Gear Ratio | Gear Case Size Dia. x Length (in.) | Motor Size Dia. x Depth (in.) | Shaft Size Dia. x Length (in.) | Pricing |         |         |
|----------|----------------|---------------------|-----------------------|----------------------|-------------|---------------|------------|------------------------------------|-------------------------------|--------------------------------|---------|---------|---------|
|          |                |                     |                       | Current (mA)         | Speed (RPM) | Torque (g-cm) |            |                                    |                               |                                | 1       | 10      | 50      |
| 167039   | GH12-0953Y     | 12                  | 4.5 - 24              | 90                   | 9           | 1200          | 188:1      | 1.0 x 0.9                          | 1.1 x 1.0                     | 0.16 x 0.60                    | \$16.49 | \$14.85 | \$13.39 |
| 167046   | GH12-1828Y     | 12                  | 4.5 - 24              | 195                  | 31          | 1300          | 90:1       | 1.1 x 1.3                          | 1.1 x 0.8                     | 0.16 x 0.60                    | 21.95   | 19.79   | 17.79   |

### GH30GM Series

| Part No. | Cross Ref. No. | Rated Voltage (VDC) | Operating Range (VDC) | @ Maximum Efficiency |             |               | Gear Ratio | Gear Case Size Dia. x Length (in.) | Motor Size Dia. x Depth (in.) | Shaft Size Dia. x Length (in.) | Pricing |         |         |
|----------|----------------|---------------------|-----------------------|----------------------|-------------|---------------|------------|------------------------------------|-------------------------------|--------------------------------|---------|---------|---------|
|          |                |                     |                       | Current (mA)         | Speed (RPM) | Torque (g-cm) |            |                                    |                               |                                | 1       | 10      | 50      |
| 170641   | GH12-1828Y-10  | 12                  | 6.0 - 24              | 105                  | 8           | 3500          | 332:1      | 1.2 x 1.2                          | 1.2 x 0.9                     | 0.16 x 0.70                    | \$23.95 | \$21.50 | \$19.40 |
| 153438   | GH12-1045Y     | 12                  | 3.0 - 12              | 90                   | 7           | 800           | 200:1      | 0.9 x 1.0                          | 1.1 x 0.6                     | 0.16 x 0.70                    | 18.95   | 17.09   | 15.35   |
| 159418   | GH12-1921Y     | 12                  | 4.5 - 12              | 200                  | 35          | 2000          | 132:1      | 1.2 x 1.2                          | 1.2 x 0.9                     | 0.16 x 0.70                    | 21.95   | 19.79   | 17.79   |
| 162191   | GH12-1324Y225  | 12                  | 4.5 - 12              | 145                  | 176         | 300           | 30:1       | 1.0 x 0.9                          | 1.1 x 0.6                     | 0.16 x 0.70                    | 16.95   | 15.25   | 13.75   |

Blue Part No. = Limited Quantity Available

For more Gears, SS-Shafts, Couplings, etc.  
go to [www.Jameco.com](http://www.Jameco.com)

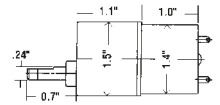


## 12VDC and 24VDC Reversible Gear Head Motors

**Quantity SAVE**

### GH35GM Series

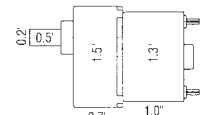
| Part No. | Cross Ref. No. | Rated Voltage (VDC) | Operating Range (VDC) | @ Maximum Efficiency |             |               | Gear Ratio | Gear Case Size Dia. x Length (in.) | Motor Size Dia. x Depth (in.) | Shaft Size Dia. x Length (in.) | Pricing |         |         |
|----------|----------------|---------------------|-----------------------|----------------------|-------------|---------------|------------|------------------------------------|-------------------------------|--------------------------------|---------|---------|---------|
|          |                |                     |                       | Current (mA)         | Speed (RPM) | Torque (g-cm) |            |                                    |                               |                                | 1       | 10      | 50      |
| 155011   | GH12-1926      | 12                  | 4.5 - 12              | 250                  | 2           | 6000          | 3000:1     | 1.3 x 0.9                          | 1.5 x 1.1                     | .23 x .90                      | \$21.95 | \$19.79 | \$17.79 |
| 155821   | GH12-1830Y-P   | 12                  | 4.5 - 12              | 220                  | 4.5         | 4500          | 1000:1     | 1.3 x 0.9                          | 1.5 x 1.0                     | .23 x .90                      | 21.95   | 19.79   | 17.79   |
| 155839   | GH12-1641T-L   | 12                  | 3.0 - 12              | 250                  | 15          | 3000          | 270:1      | 1.3 x 0.9                          | 1.5 x 0.8                     | .23 x .90                      | 23.95   | 21.59   | 19.45   |
| 152911   | GH12-1926Y     | 12                  | 4.5 - 12              | 172                  | 35          | 2370          | 100:1      | 1.3 x 1.0                          | 1.5 x 0.7                     | .24 x .90                      | 21.95   | 19.75   | 17.75   |
| 151441   | GH12-1632TI    | 12                  | 4.5 - 12              | 275                  | 57          | 2200          | 100:1      | 1.3 x 0.9                          | 1.5 x 0.7                     | .23 x .90                      | 21.95   | 18.55   | 16.69   |
| 155854   | GH12-1641T-F   | 12                  | 3.0 - 12              | 250                  | 71          | 1000          | 60:1       | 1.3 x 0.9                          | 1.4 x 0.9                     | .23 x .90                      | 21.95   | 19.79   | 17.79   |
| 155862   | GH12-1926Y-F   | 12                  | 4.5 - 12              | 300                  | 70          | 1000          | 60:1       | 1.3 x 0.9                          | 1.4 x 0.9                     | .23 x .90                      | 22.95   | 20.79   | 18.79   |
| 161373   | GH12-1345T     | 12                  | 4.5 - 12              | 185                  | 116         | 650           | 30:1       | 1.3 x 0.9                          | 1.5 x 0.7                     | .23 x .90                      | 23.95   | 20.35   | 15.26   |
| 161381   | GH12-1634T     | 12                  | 4.5 - 12              | 293                  | 145         | 850           | 30:1       | 1.3 x 0.9                          | 1.4 x 0.7                     | .23 x .90                      | 22.49   | 20.29   | 18.25   |
| 164785   | GH12-1640Y     | 12                  | 4.5 - 12              | 120                  | 220         | 180           | 10:1       | 1.3 x 0.9                          | 1.4 x 0.7                     | .23 x .90                      | 23.95   | 21.59   | 19.45   |
| 176049   | GH12-1640Y00   | 24                  | 12 - 24               | 340                  | 1.8         | 6000          | 3000:1     | 1.3 x 0.9                          | 1.5 x 1.1                     | .23 x .90                      | 21.95   | 18.66   | 15.52   |
| 176032   | GH24-1640Y06   | 24                  | 12 - 24               | 340                  | 50          | 2000          | 90:1       | 1.3 x 0.9                          | 1.4 x 0.7                     | .23 x .90                      | 21.95   | 19.79   | 17.79   |
| 176022   | GH24-1640Y19   | 24                  | 12 - 24               | 340                  | 148         | 1000          | 30:1       | 1.3 x 0.9                          | 1.4 x 0.7                     | .23 x .90                      | 21.95   | 19.79   | 17.79   |



GH35GM Series



155011



38GM Series



253446



1537168



1537176

### 38GM Series

| Part No. | Cross Ref. No. | Rated Voltage (VDC) | @ Maximum Efficiency |             |               | Gear Ratio | Gear Case Size Dia. x Height (in.) | Motor Size Dia. x Depth (in.) | Shaft Size Dia. x Length (in.) | Pricing |         |         |
|----------|----------------|---------------------|----------------------|-------------|---------------|------------|------------------------------------|-------------------------------|--------------------------------|---------|---------|---------|
|          |                |                     | Current (mA)         | Speed (RPM) | Torque (g-cm) |            |                                    |                               |                                | 1       | 10      | 50      |
| 253534   | 38-010         | 12                  | 97                   | 24          | 7500          | 250:1      | 1.5 x 0.7                          | 1.3 x 1.0                     | 0.2 x 0.5                      | \$18.95 | \$17.09 | \$15.35 |
| 253526   | 38-009         | 12                  | 93.5                 | 36          | 5400          | 167:1      | 1.5 x 0.7                          | 1.3 x 1.0                     | 0.2 x 0.5                      | 18.95   | 17.09   | 15.35   |
| 253518   | 38-008         | 12                  | 87.5                 | 40          | 4800          | 150:1      | 1.5 x 0.7                          | 1.3 x 1.0                     | 0.2 x 0.5                      | 18.95   | 17.09   | 15.35   |
| 253500   | 38-007         | 12                  | 82                   | 60          | 3200          | 100:1      | 1.5 x 0.7                          | 1.3 x 1.0                     | 0.2 x 0.5                      | 18.95   | 16.10   | 12.07   |
| 253497   | 38-006         | 12                  | 80                   | 66          | 2100          | 90:1       | 1.5 x 0.7                          | 1.3 x 1.0                     | 0.2 x 0.5                      | 18.95   | 16.10   | 12.07   |
| 253489   | 38-005         | 12                  | 76                   | 110         | 1300          | 56:1       | 1.5 x 0.7                          | 1.3 x 1.0                     | 0.2 x 0.5                      | 18.95   | 17.09   | 15.35   |
| 253472   | 38-004         | 12                  | 74                   | 120         | 1100          | 50:1       | 1.5 x 0.7                          | 1.3 x 1.0                     | 0.2 x 0.5                      | 18.95   | 17.09   | 15.35   |
| 253454   | 38-002         | 12                  | 65                   | 200         | 700           | 30:1       | 1.5 x 0.7                          | 1.3 x 1.0                     | 0.2 x 0.5                      | 18.95   | 16.10   | 12.07   |
| 253446   | 38-001         | 12                  | 61.8                 | 600         | 350           | 10:1       | 1.5 x 0.7                          | 1.3 x 1.0                     | 0.2 x 0.5                      | 18.95   | 17.09   | 15.35   |

Blue Part No. = Limited Quantity Available

### Other Manufacturers

**NEW**

| Part No. | Cross Ref. No. | Rated Voltage (VDC) | @ Maximum Efficiency |             |               | Gear Ratio | Gear Case Size Dia. x Height (in.) | Motor Size Dia. x Depth (in.) | Shaft Size Dia. x Length (in.) | Pricing |         |         |
|----------|----------------|---------------------|----------------------|-------------|---------------|------------|------------------------------------|-------------------------------|--------------------------------|---------|---------|---------|
|          |                |                     | Current (mA)         | Speed (RPM) | Torque (g-cm) |            |                                    |                               |                                | 1       | 10      | 50      |
| 1537168  | 17N-78-210E-1  | 12                  | 7.7                  | 8500        | 948           | 352:1      | 0.6 x 1.1                          | 0.7 x 1.0                     | 0.1 x 0.3                      | \$17.95 | \$16.49 | \$14.95 |
| 1537176  | 17N-78-213E-1  | 12                  | 9.1                  | 8300        | 1091          | 166:1      | 0.6 x 0.8                          | 0.7 x 1.0                     | 0.1 x 0.4                      | 17.95   | 16.49   | 14.95   |



## 1.3VDC and 3VDC Vibrating Motors

• Typical applications: cellular phones, pagers and toys

**SALE****Quantity SAVE**

Fig. 1



Fig. 2

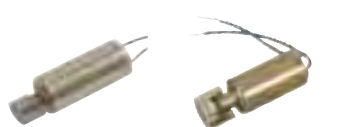


Fig. 3

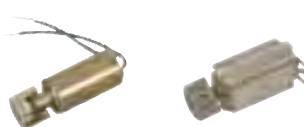


Fig. 4

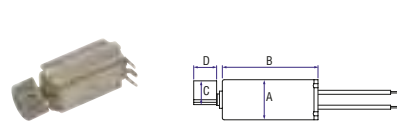


Fig. 5

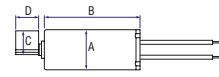


Fig. 3



Fig. 5

| Part No. | Cross Ref. No. | Fig. | Operating Voltage (VDC @ mA) | Operating Range (VDC) | Rated RPM @ VDC | Lead Length (in.) | Motor Size (A x B) Dia. " x Length" | Shaft Size (C x D) Dia. " x Length" | Pricing |        |        |
|----------|----------------|------|------------------------------|-----------------------|-----------------|-------------------|-------------------------------------|-------------------------------------|---------|--------|--------|
|          |                |      |                              |                       |                 |                   |                                     |                                     | 1       | 10     | 100    |
| 175062   | OTL-7AL        | 1    | 1.3 @ 62                     | 0.70 - 1.60           | 7000 @ 1.3      | 0.7               | 0.28 x 0.67                         | 0.10 x 0.18                         | \$5.49  | \$4.94 | \$3.67 |
| 256356   | 72K642         | 3    | 1.3 @ 70                     | 1.00 - 1.60           | 7500 @ 1.3      | 4.7               | 0.28 x 0.66                         | 0.18 x 0.22                         | 3.99    | 3.59   | 2.64   |
| 175396   | OTL-4AL        | 2*   | 1.3 @ 65                     | 0.70 - 1.60           | 8500 @ 1.3      | 0.8               | 0.16 x 0.55                         | 0.15 x 0.23                         | 6.49    | 5.51   | 4.13   |
| 256305   | 62K003         | 3    | 1.3 @ 80                     | 0.85 - 1.60           | 8500 @ 1.3      | 1.0               | 0.23 x 0.39                         | 0.10 x 0.10                         | 3.29    | 2.99   | 2.69   |
| 256365   | 72K692         | 3    | 3.0 @ 60                     | 2.40 - 3.00           | 6500 @ 3.0      | 4.7               | 0.28 x 0.66                         | 0.18 x 0.22                         | 4.65    | 4.19   | 3.75   |
| 256382   | 72K681         | 3    | 3.0 @ 60                     | 2.40 - 3.60           | 7500 @ 3.0      | 1.1               | 0.28 x 0.66                         | 0.12 x 0.16                         | 4.65    | 4.19   | 3.75   |
| 256314   | 62K053         | 3    | 3.0 @ 75                     | 1.60 - 3.60           | 8500 @ 3.0      | 1.0               | 0.23 x 0.39                         | 0.10 x 0.10                         | 3.29    | 2.99   | 2.69   |
| 256330   | 62K261         | 5    | 3.0 @ 75                     | 2.40 - 3.00           | 8500 @ 3.0      | PC Term           | 0.27 x 0.48                         | 0.11 x 0.11                         | 2.35    | 2.15   | 1.95   |
| 256090   | 42K091         | 3    | 3.0 @ 80                     | 2.40 - 3.60           | 11000 @ 3.0     | 1.0               | 0.16 x 0.43                         | 0.07 x 0.17                         | 5.95    | 5.35   | 4.85   |

### Other Manufacturers

|        |               |    |          |              |            |     |             |             |        |        |        |
|--------|---------------|----|----------|--------------|------------|-----|-------------|-------------|--------|--------|--------|
| 190078 | 6CD-1201WL-00 | 4* | 1.3 @ 80 | 1.3, typical | 7500 @ 1.3 | 1.1 | 0.24 x 0.47 | 0.10 x 0.22 | \$6.55 | \$5.57 | \$4.18 |
|--------|---------------|----|----------|--------------|------------|-----|-------------|-------------|--------|--------|--------|

\*More details on page 168

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

Color Code Legend

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**JAMECO ReliaPro**

## 1.3VDC 8,500 RPM Vibrating Motor

• Typical applications: cellular phones, pagers, and toys  
• Rated RPM: 8,500 @ 1.3VDC  
• Direction of rotation: clockwise  
• Operating voltage: 1.3V @ 65mA (typical)  
• Lead length: 0.75"  
• Size: (motor) 0.16"Dia. x 0.55"L (shaft) 0.15"Dia. x 0.23"L

**Quantity SAVE**

| Part No. | Description     | 1      | 10     | 100    |
|----------|-----------------|--------|--------|--------|
| 175396   | Vibrating motor | \$6.49 | \$5.51 | \$4.13 |

**Namiki**

## 1.3VDC 7,500 RPM Vibrating Motor

• Typical applications: cellular phones, pagers and toys  
• Rated RPM: 7,500 @ 1.3VDC  
• Clockwise rotation  
• 1.1" lead wires  
• Operating voltage: 1.3VDC @ 80mA  
• Size: (motor) 0.47"L x 0.24"Dia. (shaft) 0.22"L x 0.10"Dia.

**Quantity SAVE**

| Part No. | Description     | 1      | 10     | 100    |
|----------|-----------------|--------|--------|--------|
| 190078   | Vibrating motor | \$6.55 | \$5.57 | \$4.18 |

## 120VAC Gear Motor

6.0 RPM - 2.9 Watt

• Operating voltage: 120VAC @ 60Hz  
• Torque: >3.6 kg-cm  
• Connector: 12" wires  
• Screw down tabs for mounting (2.3" diagonal mounting hole space)  
• Shaft diameter: 0.27" • Shaft length: 0.65"  
• Overall size: 2.0" Dia. x 1.0" thick  
• Typical applications: air conditioner turnleaf motor, microwave turnplate motor

| Part No. | Cross Ref. No. | 1       | 10      | 100     |
|----------|----------------|---------|---------|---------|
| 213487   | 50TYZ          | \$14.95 | \$13.40 | \$12.10 |

**JAMECO ReliaPro**

## 12VDC and 24VDC Continuous Push, Pull and Push/Pull Solenoids

262247 262290 262263 262272 262167 142464 262203  
262183 215141 149754 149762 262175 262191 145314 163803

| Part No.                          | Cross Reference No. | Type              | Voltage (VDC) | Coil Res. (±10%) (Ohms) | Power Consump. (W) | Holding Force (lbs. @ 20°C) | Stroke (Ins.) | Size L x Dia. (Ins.) † | Shaft Dia. (Ins.) | Wt. (lbs.) | Pricing |        |        |
|-----------------------------------|---------------------|-------------------|---------------|-------------------------|--------------------|-----------------------------|---------------|------------------------|-------------------|------------|---------|--------|--------|
|                                   |                     |                   |               |                         |                    |                             |               |                        |                   |            | 1       | 10     | 100    |
| 262247                            | SMO-0520L12STD      | Open frame-pull   | 12            | 90                      | 1.6                | 0.16                        | 0.24          | 0.8 x 0.6 x 0.5        | 0.200             | 0.04       | \$5.69  | \$5.15 | \$4.69 |
| 262290                            | SMO-1253L12AA       | Open frame-pull   | 12            | 26                      | 6.0                | 0.90                        | 0.24          | 2.0 x 1.2 x 1.1        | 0.470             | 0.50       | 11.89   | 10.69  | 9.65   |
| 262263                            | SMO-0837L12STD      | Open frame-pull   | 12            | 36                      | 4.0                | 1.10                        | 0.24          | 1.5 x 1.0 x 0.8        | 0.310             | 0.21       | 7.29    | 6.56   | 5.90   |
| 262272                            | SMO-0837S12STD      | Open frame-pull   | 12            | 36                      | 4.0                | 1.10                        | 0.24          | 1.5 x 1.0 x 0.8        | 0.08/0.31*        | 0.21       | 8.39    | 7.59   | 6.85   |
| 262167                            | SMT-1325L12STD      | Tubular-pull      | 12            | 36                      | 4.0                | 0.11                        | 0.47          | 1.0 x 0.5              | 0.200             | 0.05       | 9.95    | 8.95   | 8.15   |
| 142464                            | SMT-1130L12A        | Tubular-pull      | 12            | 36                      | 4.0                | 0.63                        | 0.40          | 1.6 x 0.4              | 0.150             | 0.04       | 6.95    | 6.26   | 5.63   |
| 262203                            | SMT-3864L24STD      | Tubular-pull      | 24            | 34                      | 17.0               | 1.32                        | 1.18          | 2.5 x 1.5              | 0.620             | 1.10       | 29.95   | 25.45  | 20.99  |
| 262183                            | SMT-3257L24STD      | Tubular-pull      | 24            | 44                      | 13.0               | 3.30                        | 0.70          | 2.3 x 1.3              | 0.500             | 0.65       | 19.59   | 17.69  | 15.89  |
| 215141                            | SMT-2251L24AA       | Tubular-pull      | 24            | 60                      | 10.0               | 4.00                        | 1.00          | 3.0 x 1.0              | 0.440             | 0.40       | 10.95   | 9.31   | 6.98   |
| 149754                            | SMT-1325S12A        | Tubular-push      | 12            | 36                      | 4.0                | 0.75                        | 0.47          | 1.9 x 0.5              | 0.063             | 0.05       | 14.95   | 14.25  | 13.49  |
| 149762                            | SMT-1632S12A        | Tubular-push      | 12            | 21                      | 7.0                | 1.50                        | 0.24          | 2.5 x 0.6              | 0.098             | 0.10       | 10.95   | 9.86   | 8.87   |
| 262175                            | SMT-2551S24STD      | Tubular-push      | 24            | 58                      | 10.0               | 1.32                        | 0.70          | 2.0 x 1.0              | 0.120             | 0.40       | 15.95   | 14.39  | 12.99  |
| 262191                            | SMT-3257S24STD      | Tubular-push      | 24            | 44                      | 13.0               | 6.80                        | 0.70          | 2.3 x 1.3              | 0.160             | 0.65       | 19.95   | 17.95  | 16.19  |
| 145314                            | SMT1913S12A         | Tubular-push/pull | 12            | 89                      | 2.0                | 1.12                        | 0.16          | 1.2 x 0.7              | 0.110             | 0.05       | 9.95    | 8.96   | 6.72   |
| Other Manufacturers — Great Deals |                     |                   |               |                         |                    |                             |               |                        |                   |            |         |        |        |
| 163803                            | A420-067074-01      | Tubular-push      | 12            | 43                      | 3.4                | 0.75                        | 0.17          | 2.0 x 0.6              | 0.156             | 0.10       | \$10.45 | \$8.88 | \$6.66 |

† Open frame type dimensions: L" x W" x H" \* Dual shaft

## 12VDC Solenoid Valve

• Operating voltage: 12VDC  
• Operational temperature: -29°C to 85°C  
• 0.250" quick disconnect terminals

• Current: 350mA  
• Air leakage: 1c.c./min. max. 4psi

| Part No. | Description    | Dimensions         | 1      | 10     | 100    |
|----------|----------------|--------------------|--------|--------|--------|
| 169835   | Solenoid valve | 1.2"L x 0.92" Dia. | \$6.95 | \$6.25 | \$5.59 |



If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 322.



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RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



## Miniature Basic Switches

- 3 terminals: common; normally open; normally closed
- Size: 1.10"L x 0.40"W x 0.63"H

OMRON



159572



159581/187792



187805

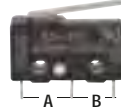
| Part No. | Product No.  | Manufacturer    | Actuator Type             | Contact Form | Contact Rating            | Resistance (Initial) | Service Life (Mech./Elec.) | Terminal Type         | Pricing |        |        |
|----------|--------------|-----------------|---------------------------|--------------|---------------------------|----------------------|----------------------------|-----------------------|---------|--------|--------|
|          |              |                 |                           |              |                           |                      |                            |                       | 1       | 10     | 100    |
| 159572   | VS10N051C    | Highly Electric | Hinge roller (0.60"L)     | SPDT-NC      | 10A @ 125VAC, 10A@250VAC  | 15milliΩ (max.)      | 10M/100k                   | .25" quick disconnect | \$2.89  | \$2.54 | \$2.28 |
| 159581   | VS10N021C2   | Highly Electric | Hinge lever (1.05"L)      | SPDT-NC      | 10A @ 125VAC, 10A@250VAC  | 15milliΩ (max.)      | 10M/100k                   | .183" quick connect   | 2.45    | 2.08   | 1.56   |
| 187792   | V-10G2-1C24K | Omron           | Hinge lever (1.08"L)      | SPDT-NC      | 0.1A @ 125VAC, 10A@250VAC | 30milliΩ (max.)      | 50M/300k                   | .183" quick connect   | 2.45    | 2.25   | 1.99   |
| 187805   | V-10G3-1C24K | Omron           | Long hinge lever (2.01"L) | SPDT-NC      | 0.1A @ 125VAC, 10A@250VAC | 30milliΩ (max.)      | 50M/300k                   | .183" quick connect   | 2.75    | 2.48   | 2.29   |



## Subminiature Basic Switches

- Economical, subminiature basic switch offers long service life
- Free from overtravel restrictions, permits easy setting
- Lead spacing: A = 0.35"; B = 0.29"
- Dimensions: 0.78"L x 0.25"W x 0.40"H

OMRON



187709



187733



159599

| Part No. | Product No. | Manufacturer    | Actuator Type        | Contact Form | Contact Rating           | Contact Force | Service Life (Mech./Elec.) | Terminal Type | Pricing |        |        |
|----------|-------------|-----------------|----------------------|--------------|--------------------------|---------------|----------------------------|---------------|---------|--------|--------|
|          |             |                 |                      |              |                          |               |                            |               | 1       | 25     | 50     |
| 187709   | SS-5GL      | Omron           | Hinge lever (0.6"L)  | SPDT-NC      | 5A @ 125VAC, 3A @ 250VAC | 50g           | 30M/200k                   | Solder        | \$1.59  | \$1.45 | \$1.29 |
| 187733   | SS-5GL2     | Omron           | Hinge roller (0.6"L) | SPDT-NC      | 5A @ 125VAC, 3A @ 250VAC | 50g           | 30M/200k                   | Solder        | 1.25    | 1.15   | 1.09   |
| 159599   | SS0505A     | Highly Electric | Hinge roller (0.7"L) | SPDT-NC      | 5A @ 125VAC, 3A @ 250VAC | 45g           | 30M/200k                   | Solder        | 1.19    | .99    | .89    |

OMRON

## D2F Series Subminiature Snap-Action Switch

Super compact for PCB mounting.

- Dimensions: 0.50"L x 0.23"W x 0.26"H
- Contact form: SPST • Contact force: standard (80g)
- Contact rating: 3A @ 125VAC; 2A @ 30VDC
- Flux penetration prevented by using an insert terminal and allowing a height difference at the case bottom



| Part No. | Product No. | Actuator Type | Contact Type    | 1     | 25    | 50    |
|----------|-------------|---------------|-----------------|-------|-------|-------|
| 188867   | D2F-L       | Hinge lever   | General purpose | \$.89 | \$.83 | \$.79 |



## D4 Series Miniature Snap-Action Switches

- Electrical life: 6,000 cycles min. per UL
- Actuating button: thermoplastic acetal/polyester
- Common terminals: silver-plated brass
- Auxiliary actuator: aluminum, stainless steel, or cold-rolled steel (nickel plated)
- UL94V-0 rated
- Temperature rating: -40°C to +85°C
- Mounting: recommend #4-40 round head
- Case: thermoplastic polyester
- Contact form: SPDT



482855



483284

| Part No. | Product No. | Lever Type                         | Contact Rating    | NO/NC Terminals | Moving Blade     | Contacts         | Terminal Type               | Pricing |        |        |
|----------|-------------|------------------------------------|-------------------|-----------------|------------------|------------------|-----------------------------|---------|--------|--------|
|          |             |                                    |                   |                 |                  |                  |                             | 1       | 10     | 100    |
| 482821   | D41CR1RA    | Standard ratio roller, 0.81"L      | 0.1A @ 125/250VAC | Brass           | Brass            | Gold cross point | Quick conn. 0.187" straight | \$4.95  | \$3.65 | \$3.15 |
| 482839   | D41CR1RD    | Standard ratio roller, 1.34"L      | 0.1A @ 125/250VAC | Brass           | Brass            | Gold cross point | Quick conn. 0.187" straight | 4.95    | 3.65   | 3.15   |
| 482855   | D41LR1RA    | Standard ratio roller, 0.81"L      | 0.1A @ 125/250VAC | Brass           | Brass            | Gold cross point | Quick conn. 0.187" straight | 5.45    | 4.63   | 3.71   |
| 482863   | D41LR1RD    | Standard ratio roller, 1.34"L      | 0.1A @ 125/250VAC | Brass           | Brass            | Gold cross point | Quick conn. 0.187" straight | 5.45    | 4.01   | 3.46   |
| 482927   | D42CR1RA    | Standard ratio roller, 0.81"L      | 3A @ 125/250VAC   | Brass           | Brass            | Silver alloy     | Quick conn. 0.187" straight | 3.29    | 2.42   | 2.09   |
| 482935   | D42CR1RD    | Standard ratio roller, 1.34"L      | 3A @ 125/250VAC   | Brass           | Brass            | Silver alloy     | Quick conn. 0.187" straight | 3.39    | 2.51   | 2.17   |
| 482901   | D42CR1LA    | Standard ratio lever, 0.865"L      | 3A @ 125/250VAC   | Brass           | Brass            | Silver alloy     | Quick conn. 0.187" straight | 1.95    | 1.81   | 1.72   |
| 482919   | D42CR1LD    | Standard ratio lever, 2.757"L      | 3A @ 125/250VAC   | Brass           | Brass            | Silver alloy     | Quick conn. 0.187" straight | 2.75    | 2.02   | 1.74   |
| 482978   | D42LR1XL    | High ratio alum. lever, 2.932"L    | 3A @ 125/250VAC   | Brass           | Brass            | Silver alloy     | Quick conn. 0.187" straight | 5.45    | 3.99   | 3.27   |
| 482986   | D42LR1YD    | Standard ratio alum. lever, 1.40"L | 3A @ 125/250VAC   | Brass           | Brass            | Silver alloy     | Quick conn. 0.187" straight | 4.15    | 3.10   | 2.68   |
| 482994   | D42LR1YL    | Standard ratio alum. lever, 1.40"L | 3A @ 125/250VAC   | Brass           | Brass            | Silver alloy     | Quick conn. 0.187" straight | 4.29    | 3.18   | 2.74   |
| 483049   | D43BQ3RA    | Standard ratio roller, 0.81"L      | 5A @ 125/250VAC   | Brass           | Brass            | Silver alloy     | Quick conn. 0.187" dog leg  | 2.75    | 2.57   | 1.90   |
| 483153   | D43LR1LD    | Standard ratio lever, 1.40"L       | 5A @ 125/250VAC   | Brass           | Brass            | Silver alloy     | Quick conn. 0.187" straight | 4.25    | 3.12   | 2.69   |
| 483102   | D43CR1RA    | Standard ratio roller, 0.81"L      | 5A @ 125/250VAC   | Brass           | Brass            | Silver alloy     | Quick conn. 0.187" straight | 3.35    | 3.10   | 2.19   |
| 483111   | D43CR1RD    | Standard ratio roller, 1.34"L      | 5A @ 125/250VAC   | Brass           | Brass            | Silver alloy     | Quick conn. 0.187" straight | 3.39    | 2.51   | 2.17   |
| 483129   | D43CR1TD    | High ratio roller, 1.516"L         | 5A @ 125/250VAC   | Brass           | Brass            | Silver alloy     | Quick conn. 0.187" straight | 2.39    | 2.25   | 2.14   |
| 483137   | D43CV3RA    | Standard ratio roller, 0.81"L      | 5A @ 125/250VAC   | Brass           | Brass            | Silver alloy     | Quick conn. 0.250" dog leg  | 2.09    | 1.98   | 1.46   |
| 483188   | D43LR1RA    | Standard ratio roller, 0.81"L      | 5A @ 125/250VAC   | Brass           | Brass            | Silver alloy     | Quick conn. 0.187" straight | 2.55    | 2.42   | 2.30   |
| 483276   | D44CR1RA    | Standard ratio roller, 0.81"L      | 10A @ 125/250VAC  | Brass           | Beryllium copper | Silver alloy     | Quick conn. 0.187" straight | 2.35    | 1.92   | 1.70   |
| 483284   | D44CR1RD    | Standard ratio roller, 1.34"L      | 10A @ 125/250VAC  | Brass           | Beryllium copper | Silver alloy     | Quick conn. 0.187" straight | 3.15    | 2.30   | 1.99   |
| 483292   | D44CR1SC    | Standard ratio slim roller         | 10A @ 125/250VAC  | Brass           | Beryllium copper | Silver alloy     | Quick conn. 0.187" straight | 1.35    | 1.24   | 1.12   |
| 483305   | D44CR1SD    | Standard ratio slim roller         | 10A @ 125/250VAC  | Brass           | Beryllium copper | Silver alloy     | Quick conn. 0.187" straight | 2.49    | 2.16   | 1.59   |
| 483401   | D44LR1RA    | Standard ratio roller, 0.81"L      | 10A @ 125/250VAC  | Brass           | Beryllium copper | Silver alloy     | Quick conn. 0.187" straight | 4.45    | 2.79   | 2.28   |
| 483410   | D44LR1RD    | Standard ratio roller, 1.34"L      | 10A @ 125/250VAC  | Brass           | Beryllium copper | Silver alloy     | Quick conn. 0.187" straight | 3.45    | 2.53   | 2.18   |
| 483428   | D44LR1SC    | Standard ratio slim roller         | 10A @ 125/250VAC  | Brass           | Beryllium copper | Silver alloy     | Quick conn. 0.187" straight | 1.55    | 1.47   | 1.32   |
| 483436   | D44LR1SD    | Standard ratio slim roller         | 10A @ 125/250VAC  | Brass           | Beryllium copper | Silver alloy     | Quick conn. 0.187" straight | 2.45    | 2.35   | 1.74   |
| 483444   | D44LV3RA    | Standard ratio roller, 0.81"L      | 10A @ 125/250VAC  | Brass           | Beryllium copper | Silver alloy     | Quick conn. 0.250" dog leg  | 2.85    | 2.71   | 2.00   |

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RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



## D4 Series Miniature Snap-Action Switches (Continued)

| Part No. | Product No. | Lever Type                       | Contact Rating   | NO/NC Terminals | Moving Blade     | Contacts     | Terminal Type               | 1      | 10     | 100    |
|----------|-------------|----------------------------------|------------------|-----------------|------------------|--------------|-----------------------------|--------|--------|--------|
| 483250   | D44CR1LA    | Standard ratio lever, 0.865"L    | 10A @ 125/250VAC | Brass           | Beryllium copper | Silver alloy | Quick conn. 0.187" straight | \$2.85 | \$2.09 | \$1.81 |
| 483268   | D44CR1LD    | Standard ratio lever, 1.400"L    | 10A @ 125/250VAC | Brass           | Beryllium copper | Silver alloy | Quick conn. 0.187" straight | 1.85   | 1.75   | 1.55   |
| 483356   | D44LR1LA    | Standard ratio lever, 0.865"L    | 10A @ 125/250VAC | Brass           | Beryllium copper | Silver alloy | Quick conn. 0.187" straight | 2.05   | 1.93   | 1.83   |
| 483372   | D44LR1LL    | Standard ratio lever, 2.757"L    | 10A @ 125/250VAC | Brass           | Beryllium copper | Silver alloy | Quick conn. 0.187" straight | 2.69   | 2.00   | 1.85   |
| 483381   | D44LR1MD    | High ratio lever, 1.40"L         | 10A @ 125/250VAC | Brass           | Beryllium copper | Silver alloy | Quick conn. 0.187" straight | 1.89   | 1.80   | 1.59   |
| 483399   | D44LR1ML    | High ratio lever, 2.934"L        | 10A @ 125/250VAC | Brass           | Beryllium copper | Silver alloy | Quick conn. 0.187" straight | 2.85   | 2.28   | 1.86   |
| 483461   | D45AQ1NA    | High ratio 1-way roller, 0.987"L | 15A @ 125/250VAC | Copper          | Beryllium copper | Silver alloy | Quick conn. 0.187" straight | 4.49   | 4.27   | 3.15   |
| 483532   | D45CR1RA    | Standard ratio roller, 0.81"L    | 15A @ 125/250VAC | Copper          | Beryllium copper | Silver alloy | Quick conn. 0.187" straight | 3.39   | 2.49   | 2.15   |
| 483541   | D45CR1RD    | Standard ratio roller, 1.34"L    | 15A @ 125/250VAC | Copper          | Beryllium copper | Silver alloy | Quick conn. 0.187" straight | 4.19   | 3.82   | 3.48   |
| 483647   | D45LR1RA    | Standard ratio roller, 0.81"L    | 15A @ 125/250VAC | Copper          | Beryllium copper | Silver alloy | Quick conn. 0.187" straight | 2.55   | 2.42   | 2.14   |
| 483655   | D45LR1RD    | Standard ratio roller, 1.34"L    | 15A @ 125/250VAC | Copper          | Beryllium copper | Silver alloy | Quick conn. 0.187" straight | 2.75   | 2.59   | 2.46   |

See Our Cherry D48 & DN3 Series Miniature Snap-Action Offering at [www.Jameco.com/Prod/CherryMiniSnap](http://www.Jameco.com/Prod/CherryMiniSnap)

## DA Series Subminiature Snap-Action Switches

- Contact rating: 0.1A @ 125VAC
- Electrical life at rated load: 100,000 cycles per UL
- Temp. rating: -40°C to +85°C • UL94V-0 rated
- Case: thermoplastic polyester
- Actuating button: thermoplastic acetal
- Terminals: silver-plated bronze
- Moving blade: silver-plated beryllium copper
- Spring: copper coated stainless steel
- Auxiliary actuator and roller: stainless steel
- Contacts: gold cross point
- Recommended #2-56 round head screw



## DB Series Subminiature Snap-Action Switches

- High precision switch with high repeat accuracy
- Contact form: SPDT
- Flammability rating: UL94V-0 for PBT and PET materials; UL94HB for POM material
- Electrical life @ rated load: 6,000 operations per UL
- Mechanical life: 15 x 10<sup>6</sup> operations
- Base: PET (polyethyleneterephthalate)
- Cover: PBT (polybutyleneterephthalate)
- Actuator PBT, POM (polyacetal)
- Auxiliary actuator: stainless steel or plastic
- Terminals: silver-plated copper zinc
- Contacts: silver alloy gold cross point



| Part No. | Product No. | Contact Form | Lever Type                         | Terminals                  | 1      | 10     | 100    |
|----------|-------------|--------------|------------------------------------|----------------------------|--------|--------|--------|
| 483680   | DA3AF1RB    | SPST NO      | Standard ratio roller, 0.21"L      | Quick conn. 0.093"         | \$6.09 | \$5.79 | \$4.27 |
| 483727   | DA3CB1RB    | SPDT         | Standard ratio roller, 0.21"L      | Quick conn. 0.110"         | 4.35   | 4.20   | 4.05   |
| 483735   | DA3CB1SB    | SPDT         | Std. ratio simultd roller, 0.197"L | Quick conn. 0.110"         | 5.29   | 4.22   | 3.44   |
| 483760   | DA3CD1RB    | SPDT         | Standard ratio roller, 0.21"L      | Short solder eyelet 0.110" | 4.29   | 3.49   | 3.09   |
| 483778   | DA3CD1SB    | SPDT         | Std. ratio simultd roller, 0.197"L | Short solder eyelet 0.110" | 3.55   | 3.38   | 2.99   |
| 483786   | DA3CD1UB    | SPDT         | Hi ratio simultd roller, 0.322"L   | Short solder eyelet 0.110" | 3.95   | 3.73   | 2.76   |
| 483831   | DA3CF1RB    | SPDT         | Standard ratio roller, 0.201"L     | Quick conn. 0.093"         | 5.25   | 4.07   | 3.33   |
| 483840   | DA3CF1SC    | SPDT         | Std. ratio simultd roller, 0.258"L | Quick conn. 0.093"         | 4.59   | 4.35   | 3.21   |
| 483858   | DA3CF1UA    | SPDT         | Hi ratio simultd roller, 0.235"L   | Quick conn. 0.093"         | 5.65   | 4.18   | 3.61   |
| 483866   | DA3CF1UB    | SPDT         | Hi ratio simultd roller, 0.322"L   | Quick conn. 0.093"         | 3.95   | 3.73   | 2.76   |
| 483903   | DA3CK1RB    | SPDT         | Standard ratio roller, 0.201"L     | Solder eyelet 0.110"       | 5.15   | 4.88   | 3.60   |

| Part No. | Product No. | Contact Rating     | Lever Type | Terminals                   | 1      | 10     | 100    |
|----------|-------------|--------------------|------------|-----------------------------|--------|--------|--------|
| 483971   | DB1CB1RB    | 5A @ 125/250VAC    | Roller     | Quick conn. 0.110" straight | \$2.89 | \$2.31 | \$2.03 |
| 483989   | DB1CB1RC    | 5A @ 125/250VAC    | Roller     | Quick conn. 0.110" straight | 2.89   | 2.31   | 2.03   |
| 484041   | DB1CD5RC    | 5A @ 125/250VAC    | Roller     | PCB terminals left and side | 2.89   | 2.31   | 2.03   |
| 484084   | DB2CA1RC    | 10.1A @ 125/250VAC | Roller     | Short solder                | 2.86   | 2.31   | 2.03   |
| 484105   | DB2CB1RC    | 10.1A @ 125/250VAC | Roller     | Quick conn. 0.110" straight | 2.89   | 2.31   | 2.03   |
| 484156   | DB3CB1SC    | 0.1A @ 125/250VAC  | Simulated  | Quick conn. 0.110" straight | 1.99   | 1.69   | 1.57   |

## DG Series Subminiature Snap-Action Switches

- Contact form: SPDT
- Lever type: roller 0.075"L
- Small dimensions, just 0.504" x 0.228" x 0.256"
- Electrical life at rated load: 6,000 operations per UL
- Mechanical life: 1 x 10<sup>6</sup> operations
- Temp. rating: -25°C to +85°C
- Flammability rating: UL94V-0
- Base: PPHS (polyphenylene sulphide)
- Cover and actuator: PBT (polybutyleneterephthalate)
- Auxiliary actuator: stainless steel
- Terminals: silver-plated brass



| Part No. | Product No. | Contact Rating          | Contacts         | Terminals      | 1      | 10     | 100    |
|----------|-------------|-------------------------|------------------|----------------|--------|--------|--------|
| 484578   | DG13B1RA    | 3A @ 125VAC, 2A @ 30VDC | Silver alloy     | PCB straight   | \$3.29 | \$2.42 | \$1.97 |
| 484607   | DG13B3RA    | 3A @ 125VAC, 2A @ 30VDC | Silver alloy     | PCB left side  | 2.95   | 2.78   | 2.64   |
| 484631   | DG23B1RA    | 0.05A @ 30VDC           | Gold flash, gold | PCB straight   | 3.49   | 2.58   | 2.10   |
| 484666   | DG23B2RA    | 0.05A @ 30VDC           | Gold flash, gold | PCB right side | 3.89   | 3.31   | 2.66   |

## DH Series Subminiature Snap-Action Switches

- Electrical rating: DH3: 50 to 300mA @ 30VDC; DH4: 5 to 50mA @ 30VDC
- Ultraminiature dimensions
- Specially designed for low switching currents/voltages
- Temperature rating: -25°C to +70°C
- UL94V-0 flammability rating



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## DC Series Sealed Subminiature Snap-Action Switches

- Electrical life at rated load: 6,000 operations per UL
- Flammability rating: UL94V-0 (PET, PBT material); UL94HB (POM)
- Case: PET (polyethyleneterephthalate) / PBT (polybutyleneterephthalate)
- Actuator: POM (polyacetal)
- Terminals: silver plated copper zinc
- Mechanical life (min.): 1 x 10<sup>6</sup> operations
- Auxiliary actuator: stainless steel or plastic



| Part No. | Product No. | Contact Form | Lever Type               | Contact Rating     | Contacts         | Terminal Type    | 1      | 10     | 100    |
|----------|-------------|--------------|--------------------------|--------------------|------------------|------------------|--------|--------|--------|
| 484228   | DC1CA1RB♣   | SPDT         | Roller 0.098"L           | 5A @ 125/250VAC    | Silver alloy     | Short solder     | \$6.95 | \$5.78 | \$5.01 |
| 484236   | DC1CA1RC♣   | SPDT         | Roller 0.185"L           | 5A @ 125/250VAC    | Silver alloy     | Short solder     | 4.85   | 4.58   | 3.38   |
| 484252   | DC1CB3RC♣   | SPDT         | Roller 0.185"L           | 5A @ 125/250VAC    | Silver alloy     | Lead wires       | 15.05  | 14.25  | 10.52  |
| 484287   | DC1CD5RB♣   | SPDT         | Roller 0.098"L           | 5A @ 125/250VAC    | Silver alloy     | 18AWG lead wires | 12.49  | 11.87  | 8.76   |
| 484359   | DC2CA1RB♣   | SPDT         | Roller 0.098"L           | 10.1A @ 125/250VAC | Silver alloy     | Short solder     | 4.95   | 3.68   | 3.01   |
| 484367   | DC2CA1RC♣   | SPDT         | Roller 0.185"L           | 10.1A @ 125/250VAC | Silver alloy     | Short solder     | 4.45   | 4.21   | 3.11   |
| 484404   | DC3AA1RC♣   | SPST NO      | Roller 0.185"L           | 0.1A @ 125/250VAC  | Gold cross point | Short solder     | 5.65   | 5.35   | 3.95   |
| 484412   | DC3BB3LB♣   | SPST NC      | Lever 0.189"L            | 0.1A @ 125/250VAC  | Gold cross point | Lead wires       | 14.35  | 13.60  | 10.04  |
| 484447   | DC3CA1RB♣   | SPDT         | Roller 0.098"L           | 0.1A @ 125/250VAC  | Gold cross point | Short solder     | 5.15   | 4.90   | 3.62   |
| 484455   | DC3CA1SB♣   | SPDT         | Simulated roller 0.098"L | 0.1A @ 125/250VAC  | Gold cross point | Short solder     | 4.75   | 4.50   | 3.33   |
| 484480   | DC3CK6SC♣   | SPDT         | Simulated roller 0.185"L | 0.1A @ 125/250VAC  | Gold cross point | PCB terminals    | 4.99   | 4.72   | 3.49   |
| 484501   | DC3CK7SC♣   | SPDT         | Simulated roller 0.185"L | 0.1A @ 125/250VAC  | Gold cross point | PCB terminals    | 4.99   | 4.72   | 3.49   |
| 484527   | DC3CL1RC♣   | SPDT         | Roller 0.185"L           | 0.1A @ 125/250VAC  | Gold cross point | Lead wires       | 5.85   | 5.53   | 4.08   |
| 484543   | DC3CM5RB♣   | SPDT         | Roller 0.098"L           | 0.1A @ 125/250VAC  | Gold cross point | 20AWG lead wires | 12.15  | 11.82  | 11.67  |



## E21 - E22 - E23 Series Miniature Snap-Action Switches

- Long life coil mechanism
- Temperature rating: -40°C to +85°C
- Actuating button: thermoplastic acetal
- NO & NC terminals: brass
- Roller: sintered stainless steel
- Electrical life at rated load: 6,000 operations per UL
- Flammability rating: UL94HB
- Common terminals: silver plated brass
- Spring: stainless steel
- Recommend #4-40 round head screw
- Case: general purpose phenolic



424604

424891

425148

| Part No. | Product No. | Contact Form | Lever Type                  | Contact Rating  | Moving Blade | Auxiliary Actuator | Contacts         | Terminal Type   | 1      | 10     | 100    |
|----------|-------------|--------------|-----------------------------|-----------------|--------------|--------------------|------------------|-----------------|--------|--------|--------|
| 424461   | E21-00K♣    | SPDT         | Roller 0.81"L               | 0.1A @ 125VAC   | Brass        | Aluminum           | Gold cross point | Quick connect   | \$5.59 | \$4.15 | \$3.41 |
| 424524   | E21-30K♣    | SPDT         | Roller                      | 0.1A @ 125VAC   | Brass        | Aluminum           | Gold cross point | Quick connect   | 4.19   | 3.94   | 3.74   |
| 424559   | E21-50HL♣   | SPDT         | Lever 1.580"L               | 0.1A @ 125VAC   | Brass        | Aluminum           | Gold cross point | Quick connect   | 7.15   | 7.07   | 7.00   |
| 424575   | E21-50K♣    | SPDT         | Roller 1.34"L               | 0.1A @ 125VAC   | Brass        | Aluminum           | Gold cross point | Short solder    | 4.29   | 4.07   | 3.61   |
| 424583   | E21-50KX♣   | SPDT         | Roller 1.34"L               | 0.1A @ 125VAC   | Brass        | Aluminum           | Gold cross point | Quick connect   | 4.19   | 3.90   | 3.70   |
| 424591   | E21-50N♣    | SPDT         | Straight plastic 1.382"L    | 0.1A @ 125VAC   | Brass        | Aluminum           | Gold cross point | Quick connect   | 5.45   | 5.17   | 4.91   |
| 424604   | E21-50NX♣*  | SPDT         | Straight plastic 1.382"L    | 0.1A @ 125VAC   | Brass        | Aluminum           | Gold cross point | Quick connect   | 3.75   | 3.55   | 3.37   |
| 424612   | E21-51K♣    | SPST NO      | Roller 1.34"L               | 0.1A @ 125VAC   | Brass        | Aluminum           | Gold cross point | Quick connect   | 3.55   | 3.37   | 3.20   |
| 424621   | E21-51KX♣*  | SPST NO      | Roller 1.34"L               | 0.1A @ 125VAC   | Brass        | Aluminum           | Gold cross point | Quick connect   | 3.95   | 3.71   | 3.52   |
| 424639   | E21-71KX♣*  | SPST NO      | Roller                      | 0.1A @ 125VAC   | Brass        | Aluminum           | Gold cross point | Quick connect   | 3.65   | 3.48   | 3.30   |
| 424647   | E21-75HX♣   | SPDT         | Straight 1.58"L             | 0.1A @ 125VAC   | Brass        | Aluminum           | Gold cross point | Quick connect   | 3.95   | 3.75   | 3.54   |
| 424655   | E21-75KX♣*  | SPDT         | Roller 1.516"L              | 0.1A @ 125VAC   | Brass        | Aluminum           | Gold cross point | Quick connect   | 3.75   | 3.56   | 3.38   |
| 424671   | E21-85HX♣   | SPDT         | Lever 2.932"L               | 0.1A @ 125VAC   | Brass        | Aluminum           | Gold cross point | Quick connect   | 7.39   | 5.49   | 4.46   |
| 424680   | E21-90K♣    | SPDT         | Roller                      | 0.1A @ 125VAC   | Brass        | Aluminum           | Gold cross point | Quick connect   | 6.05   | 5.74   | 5.45   |
| 424698   | E21-92N♣    | SPST NC      | Simulated roller            | 0.1A @ 125VAC   | Brass        | Aluminum           | Gold cross point | Quick connect   | 3.09   | 2.93   | 2.78   |
| 424735   | E22-00K♣    | SPDT         | Roller 0.81"L               | 3A @ 125/250VAC | Brass        | Aluminum           | Silver alloy     | Quick connect   | 2.65   | 2.53   | 2.28   |
| 424823   | E22-50K♣    | SPDT         | Roller 1.34"L               | 3A @ 125/250VAC | Brass        | Aluminum           | Silver alloy     | Quick connect   | 2.65   | 2.51   | 2.38   |
| 424831   | E22-50KL♣   | SPDT         | Roller 1.516"L              | 3A @ 125/250VAC | Brass        | Aluminum           | Silver alloy     | Quick connect   | 3.65   | 2.77   | 2.28   |
| 424840   | E22-50KX♣*  | SPDT         | Roller                      | 3A @ 125/250VAC | Brass        | Aluminum           | Silver alloy     | Quick connect   | 2.95   | 2.79   | 2.65   |
| 424858   | E22-50P♣    | SPDT         | Roller 1.34"L               | 3A @ 125/250VAC | Brass        | Aluminum           | Silver alloy     | Quick connect   | 5.89   | 5.82   | 5.76   |
| 424891   | E22-75KX♣*  | SPDT         | Roller 1.516"L              | 3A @ 125/250VAC | Brass        | Aluminum           | Silver alloy     | Quick connect   | 2.65   | 2.49   | 2.37   |
| 424920   | E22-90N♣    | SPDT         | Straight plastic 1.289"L    | 3A @ 125/250VAC | Brass        | Aluminum           | Silver alloy     | Quick connect   | 2.29   | 2.18   | 2.07   |
| 424954   | E23-00H♣    | SPDT         | Straight 0.865"L            | 5A @ 125/250VAC | Brass        | Cold-rolled steel  | Silver alloy     | Quick connect   | 2.99   | 2.96   | 2.93   |
| 424962   | E23-00K♣    | SPDT         | Roller 0.81"L               | 5A @ 125/250VAC | Brass        | Cold-rolled steel  | Silver alloy     | Quick connect   | 3.85   | 2.82   | 2.33   |
| 424971   | E23-00KX♣*  | SPDT         | Roller                      | 5A @ 125/250VAC | Brass        | Cold-rolled steel  | Silver alloy     | Quick connect   | 2.85   | 2.70   | 2.56   |
| 424997   | E23-20K♣    | SPDT         | Roller                      | 5A @ 125/250VAC | Brass        | Cold-rolled steel  | Silver alloy     | Solder terminal | 2.79   | 2.65   | 2.51   |
| 425009   | E23-40K♣    | SPDT         | Roller                      | 5A @ 125/250VAC | Brass        | Cold-rolled steel  | Silver alloy     | Quick connect   | 2.85   | 2.69   | 2.55   |
| 425017   | E23-50H♣    | SPDT         | Lever 1.40"L                | 5A @ 125/250VAC | Brass        | Cold-rolled steel  | Silver alloy     | Quick connect   | 2.39   | 2.26   | 2.15   |
| 425025   | E23-50HL♣   | SPDT         | Lever 1.58"L                | 5A @ 125/250VAC | Brass        | Cold-rolled steel  | Silver alloy     | Quick connect   | 3.15   | 3.08   | 3.05   |
| 425033   | E23-50HX♣   | SPDT         | Lever 1.40"L                | 5A @ 125/250VAC | Brass        | Cold-rolled steel  | Silver alloy     | Quick connect   | 2.49   | 2.35   | 2.23   |
| 425041   | E23-50K♣    | SPDT         | Roller 1.34"L               | 5A @ 125/250VAC | Brass        | Cold-rolled steel  | Silver alloy     | Quick connect   | 3.85   | 2.82   | 2.33   |
| 425050   | E23-50KX♣*  | SPDT         | Roller 1.34"L               | 5A @ 125/250VAC | Brass        | Cold-rolled steel  | Silver alloy     | Quick connect   | 2.69   | 2.56   | 2.43   |
| 425068   | E23-50N♣    | SPDT         | Straight plastic 1.382"L    | 5A @ 125/250VAC | Brass        | Cold-rolled steel  | Silver alloy     | Quick connect   | 2.15   | 2.04   | 1.94   |
| 425076   | E23-50P♣    | SPDT         | Roller 1.34"L               | 5A @ 125/250VAC | Brass        | Cold-rolled steel  | Silver alloy     | Quick connect   | 5.89   | 5.83   | 5.79   |
| 425105   | E23-70KL♣   | SPDT         | Roller                      | 5A @ 125/250VAC | Brass        | Cold-rolled steel  | Silver alloy     | Quick connect   | 3.05   | 2.90   | 2.75   |
| 425121   | E23-75KX♣*  | SPDT         | Roller 1.516"L              | 5A @ 125/250VAC | Brass        | Cold-rolled steel  | Silver alloy     | Quick connect   | 2.89   | 2.74   | 2.60   |
| 425148   | E23-90N♣    | SPDT         | Simul. roller plas. 1.289"L | 5A @ 125/250VAC | Brass        | Cold-rolled steel  | Silver alloy     | Quick connect   | 2.09   | 1.99   | 1.89   |

\* Light force type actuator

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.



# Snap-Action Switches (Continued)

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |



## E33 - E34 Series Miniature Snap-Action Switches

- Long life coil mechanism
- Temperature rating: -40°C to +85°C
- Actuating button: thermoplastic acetal
- Spring: stainless steel
- Electrical life at rated load: 6,000 operations per UL
- Flammability rating: UL94HB
- Common terminals: silver plated brass
- Roller: sintered stainless steel
- Case: general purpose phenolic
- NO & NC terminals: brass
- Recommend #4-40 round head screw

425236



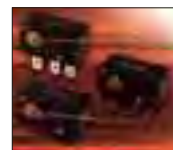
| Part No. | Product No. | Contact Form | Lever Type                  | Contact Rating   | Moving Blade                 | Auxiliary Actuator | Contacts     | Terminal Type   | 1      | 10     | 100    |
|----------|-------------|--------------|-----------------------------|------------------|------------------------------|--------------------|--------------|-----------------|--------|--------|--------|
| 425236   | E33-00K♣    | SPDT         | Roller 0.81"L               | 6A @ 125/250VAC  | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Quick connect   | \$3.35 | \$2.47 | \$2.14 |
| 425244   | E33-00KT♣   | SPDT         | Roller                      | 6A @ 125/250VAC  | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Quick connect   | 3.19   | 3.03   | 2.88   |
| 425252   | E33-01K♣    | SPDT NO      | Roller                      | 6A @ 125/250VAC  | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Quick connect   | 2.55   | 2.41   | 2.29   |
| 425295   | E33-10K♣    | SPDT         | Roller                      | 6A @ 125/250VAC  | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Screw terminal  | 5.69   | 5.40   | 5.13   |
| 425316   | E33-20K♣    | SPDT         | Roller                      | 6A @ 125/250VAC  | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Solder terminal | 2.65   | 2.52   | 2.39   |
| 425324   | E33-40K♣    | SPDT         | Roller                      | 6A @ 125/250VAC  | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Quick connect   | 2.89   | 2.73   | 2.59   |
| 425367   | E33-50K♣    | SPDT         | Roller 1.340"L              | 6A @ 125/250VAC  | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Quick connect   | 2.35   | 2.23   | 2.07   |
| 425375   | E33-50KL♣   | SPDT         | Roller 1.516"L              | 6A @ 125/250VAC  | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Quick connect   | 2.49   | 2.33   | 2.21   |
| 425383   | E33-50KX♣*  | SPDT         | Roller 1.340"L              | 6A @ 125/250VAC  | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Quick connect   | 2.65   | 2.49   | 2.37   |
| 425391   | E33-50P♣    | SPDT         | Roller 1.340"L              | 6A @ 125/250VAC  | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Quick connect   | 5.59   | 5.30   | 5.03   |
| 425471   | E33-75KX♣*  | SPDT         | Roller 1.516"L              | 6A @ 125/250VAC  | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Quick connect   | 1.99   | 1.90   | 1.80   |
| 425498   | E33-90N♣    | SPDT         | Simul. roller plas. 1.289"L | 6A @ 125/250VAC  | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Quick connect   | 2.05   | 1.94   | 1.84   |
| 425501   | E33-90NX♣*  | SPDT         | Simul. roller plas. 1.289"L | 6A @ 125/250VAC  | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Quick connect   | 2.09   | 1.96   | 1.86   |
| 455822   | E34-00K♣    | SPDT         | Roller 0.810"L              | 15A @ 125/250VAC | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Quick connect   | 3.55   | 2.71   | 2.23   |
| 455831   | E34-00KX♣   | SPDT         | Roller                      | 15A @ 125/250VAC | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Quick connect   | 2.55   | 2.40   | 2.28   |
| 455881   | E34-10K♣    | SPDT         | Roller                      | 15A @ 125/250VAC | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Screw terminal  | 4.19   | 3.94   | 3.74   |
| 455890   | E34-11K♣    | SPDT NO      | Roller                      | 15A @ 125/250VAC | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Screw terminal  | 4.45   | 4.22   | 4.01   |
| 455902   | E34-12K♣    | SPDT NC      | Roller                      | 15A @ 125/250VAC | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Screw terminal  | 4.49   | 4.29   | 4.07   |
| 455929   | E34-20K♣    | SPDT         | Roller                      | 15A @ 125/250VAC | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Solder terminal | 2.99   | 2.82   | 2.68   |
| 456008   | E34-50KL♣   | SPDT         | Roller 1.516"L              | 15A @ 125/250VAC | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Quick connect   | 2.65   | 2.52   | 2.39   |
| 456024   | E34-50P♣    | SPDT         | Roller 1.340"L              | 15A @ 125/250VAC | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Quick connect   | 5.65   | 5.59   | 5.53   |
| 456041   | E34-70K♣    | SPDT         | Roller                      | 15A @ 125/250VAC | Silver-pltd beryllium copper | Cold-rolled steel  | Silver alloy | Quick connect   | 3.09   | 2.95   | 2.79   |

\* Light force type actuator



## E53 Series Miniature Snap-Action Switches, Low Torque

- Long life coil spring mechanism
- Electrical life: 6,000 operations per UL
- Case: general purpose phenolic
- Low torque rotary actuation
- Flammability rating: UL94HB
- Spring: stainless steel



| Part No. | Product No. | Contact Form | Terminal Material   | Contact Rating | Moving Blade | Actuator               | Contacts         | Terminal Type      | 1       | 10     | 100    |
|----------|-------------|--------------|---------------------|----------------|--------------|------------------------|------------------|--------------------|---------|--------|--------|
| 456260   | E53-00B♣    | SPDT         | Silver-plated brass | 0.1A @ 125VAC  | Brass        | Wire clockwise         | Gold cross point | Quick conn. 0.205" | \$12.85 | \$9.49 | \$7.71 |
| 456278   | E53-00E♣    | SPDT         | Silver-plated brass | 0.1A @ 125VAC  | Brass        | Wire counter-clockwise | Gold cross point | Quick conn. 0.205" | 11.65   | 8.63   | 7.44   |
| 456286   | E53-00R♣    | SPDT         | Silver-plated brass | 0.1A @ 125VAC  | Brass        | Wire clockwise         | Gold cross point | Quick conn. 0.187" | 10.65   | 7.86   | 6.78   |
| 456294   | E53-00T♣    | SPDT         | Silver-plated brass | 0.1A @ 125VAC  | Brass        | Wire counter-clockwise | Gold cross point | Quick conn. 0.187" | 7.55    | 7.14   | 6.78   |
| 456307   | E53-50T♣    | SPDT         | Silver-plated brass | 0.1A @ 125VAC  | Brass        | Wire counter-clockwise | Gold cross point | Quick conn. 0.187" | 10.65   | 10.53  | 10.43  |



## K Series Miniature Snap-Action Switch

- Long mechanical life
- Electrical life at rated load: 100,000 operations per UL
- Temperature rating: -40°C to +85°C
- Button: thermoplastic acetal
- Moving blade: beryllium copper
- Wiping contact action
- Snap over actuators
- Flammability rating: UL04V-0
- Case and cover: thermoplastic polyester
- Auxiliary actuator: cold-rolled steel (nickel plated)
- Recommend #4-40 round head for mounting



| Part No. | Product No. | Lever Type                    | Contact Rating     | Terminal Material | Contacts     | Terminal Type        | 1      | 10     | 100    |
|----------|-------------|-------------------------------|--------------------|-------------------|--------------|----------------------|--------|--------|--------|
| 512794   | KWMAQAQ♣    | Roller standard ratio 1.340"L | 15.1A @ 125/250VAC | Brass             | Silver alloy | Quick connect 0.187" | \$3.29 | \$3.14 | \$2.32 |

See Our Additional Cherry Miniature Snap-Action Offering at [www.Jameco.com/Prod/CherryMiniSnap](http://www.Jameco.com/Prod/CherryMiniSnap)



## E Series Subminiature Snap-Action Switches

- Long life coil spring mechanism
- Temperature rating: -40°C to +85°C
- Actuating button: thermoplastic acetal
- Spring: stainless steel
- Electrical life at rated load: 6,000 operations per UL
- Flammability rating: UL94HB
- Terminals: silver-plated commercial bronze
- Auxiliary actuator: cold-rolled steel (nickel-plated)
- Case: thermoplastic
- Recommend #2-56 round head

456366



| Part No. | Product No. | Contact Form | Lever Type               | Contact Rating  | Moving Blade     | Contacts    | Terminal Type | 1      | 10     | 100    |
|----------|-------------|--------------|--------------------------|-----------------|------------------|-------------|---------------|--------|--------|--------|
| 456366   | E61-00K♣    | SPDT         | Roller 0.203"L           | 5A @ 125/250VAC | Beryllium copper | Fine silver | Quick connect | \$4.55 | \$3.39 | \$2.82 |
| 456374   | E61-00KP♣   | SPDT         | Roller                   | 5A @ 125/250VAC | Beryllium copper | Fine silver | Quick connect | 5.25   | 4.95   | 4.70   |
| 456382   | E61-00R♣    | SPDT         | Simulated roller 0.196"L | 5A @ 125/250VAC | Beryllium copper | Fine silver | Quick connect | 4.85   | 4.79   | 4.75   |
| 456391   | E61-00RP♣   | SPDT         | Simulated roller         | 5A @ 125/250VAC | Beryllium copper | Fine silver | Quick connect | 6.75   | 6.41   | 6.09   |
| 456438   | E61-10K♣    | SPDT         | Roller 0.203"L           | 5A @ 125/250VAC | Beryllium copper | Fine silver | Short solder  | 4.55   | 3.39   | 2.82   |

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

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Find them easily on the product specification pages at [www.Jameco.com](http://www.Jameco.com).



## E Series Subminiature Snap-Action Switches (Continued)

| Part No. | Product No. | Contact Form | Lever Type       | Contact Rating     | Moving Blade     | Contacts         | Terminal Type | 1      | 10     | 100    |
|----------|-------------|--------------|------------------|--------------------|------------------|------------------|---------------|--------|--------|--------|
| 456446   | E61-10R♣    | SPDT         | Simulated roller | 5A @ 125/250VAC    | Beryllium copper | Fine silver      | Short solder  | \$2.35 | \$2.31 | \$2.29 |
| 456497   | E61-30K♣    | SPDT         | Roller           | 5A @ 125/250VAC    | Beryllium copper | Fine silver      | Quick connect | 4.49   | 3.39   | 2.82   |
| 456526   | E61-31K♣    | SPST NO      | Roller           | 5A @ 125/250VAC    | Beryllium copper | Fine silver      | Quick connect | 2.75   | 2.71   | 2.69   |
| 456569   | E61-50K♣    | SPDT         | Roller 0.326"L   | 5A @ 125/250VAC    | Beryllium copper | Fine silver      | Quick connect | 3.59   | 3.39   | 3.14   |
| 456614   | E61-60K♣    | SPDT         | Roller           | 5A @ 125/250VAC    | Beryllium copper | Fine silver      | Short solder  | 4.85   | 3.58   | 3.09   |
| 456649   | E61-80K♣    | SPDT         | Roller           | 5A @ 125/250VAC    | Beryllium copper | Fine silver      | Quick connect | 4.85   | 3.58   | 3.09   |
| 456690   | E62-00K♣    | SPDT         | Roller 0.203"L   | 10.1A @ 125/250VAC | Beryllium copper | Fine silver      | Quick connect | 4.59   | 3.42   | 3.04   |
| 456729   | E62-02K♣    | SPST NC      | Roller 0.203"L   | 10.1A @ 125/250VAC | Beryllium copper | Fine silver      | Quick connect | 4.55   | 4.08   | 3.88   |
| 456753   | E62-10K♣    | SPDT         | Roller           | 10.1A @ 125/250VAC | Beryllium copper | Fine silver      | Short solder  | 4.59   | 3.42   | 3.04   |
| 456809   | E62-30K♣    | SPDT         | Roller           | 10.1A @ 125/250VAC | Beryllium copper | Fine silver      | Quick connect | 3.39   | 3.20   | 3.04   |
| 456833   | E62-50K♣    | SPDT         | Roller 0.326"L   | 10.1A @ 125/250VAC | Beryllium copper | Fine silver      | Quick connect | 4.85   | 3.86   | 3.15   |
| 456850   | E62-60K♣    | SPDT         | Roller           | 10.1A @ 125/250VAC | Beryllium copper | Fine silver      | Short solder  | 3.39   | 3.20   | 3.04   |
| 456876   | E62-80K♣    | SPDT         | Roller           | 10.1A @ 125/250VAC | Beryllium copper | Fine silver      | Quick connect | 2.99   | 2.84   | 2.70   |
| 456913   | E63-00K♣    | SPDT         | Roller 0.203"L   | 0.1A @ 125VAC      | Beryllium copper | Gold cross point | Quick connect | 7.05   | 5.33   | 4.48   |
| 456972   | E63-10K♣    | SPDT         | Roller           | 0.1A @ 125VAC      | Beryllium copper | Gold cross point | Short solder  | 7.05   | 5.33   | 4.48   |
| 457019   | E63-30K♣    | SPDT         | Roller           | 0.1A @ 125VAC      | Beryllium copper | Gold cross point | Quick connect | 7.15   | 5.70   | 4.64   |
| 457094   | E63-80K♣    | SPDT         | Roller           | 0.1A @ 125VAC      | Beryllium copper | Gold cross point | Quick connect | 4.99   | 4.72   | 4.48   |



## E72/E73 Series Sealed Subminiature Snap-Action Switches

- Moisture resistant • Long life coil spring mechanism
- Electrical life at rated load: 6,000 operations per UL
- Flammability rating: UL94V-0
- Potting: macromelt polyamide
- Water resistant, weatherproof hydrin boot
- Temperature rating: -40°C to +85°C
- Case & button: hi-temp thermoplastic nylon
- Recommended #6-32 round head screw



457431

| Part No. | Product No. | Contact Form | Lever Type     | Contact Rating     | Actuator        | Contacts         | Terminal Type    | 1       | 10     | 100    |
|----------|-------------|--------------|----------------|--------------------|-----------------|------------------|------------------|---------|--------|--------|
| 457414   | E72-42KT♣   | SPST NC      | Roller 0.650"L | 10.1A @ 125/250VAC | Stainless steel | Silver alloy     | Quick connect    | \$11.75 | \$8.73 | \$7.44 |
| 457431   | E73-40KT♣   | SPDT         | Roller 0.650"L | 0.1A @ 125VAC      | Stainless steel | Gold cross point | 16AWG lead wires | 10.55   | 10.00  | 9.50   |



## E Series General Purpose Snap-Action Switches

### Single and Double Pole

- Long life coil mechanism
- Temperature rating: 105°C standard
- Case: general purpose phenolic
- Terminals: 0.250" quick connect
- Roller: sintered stainless steel • Spring: stainless steel
- Electrical life at rated load: 6,000 operations per UL
- Flammability rating: UL94HB
- Actuating button: thermoplastic nylon
- Auxiliary actuators: cold-rolled steel (nickel plated)
- Recommended #6-32 round head screw

Lower \$\$\$



424145

424436

425164

| Part No. | Product No. | Contact Form | Lever Type     | Contact Rating     | Common Terminal     | NO/NC Terminal | Moving Blade                | Contacts             | 1           | 10     | 100    |
|----------|-------------|--------------|----------------|--------------------|---------------------|----------------|-----------------------------|----------------------|-------------|--------|--------|
| 424057   | E13-01H♣    | SPST NO      | Lever 1.500"   | 15A @ 125/250VAC   | Brass               | Brass          | Brass                       | Silver-cadmium oxide | \$3.79      | \$2.80 | \$2.41 |
| 424137   | E13-50H     | SPDT         | Lever 1.500"   | 15A @ 125/250VAC   | Brass               | Brass          | Brass                       | Silver-cadmium oxide | 2.85        | 2.76   | 2.70   |
| 424022   | E13-00K     | SPDT         | Roller 1.391"L | 15A @ 125/250VAC   | Brass               | Brass          | Brass                       | Silver-cadmium oxide | \$5.79 3.45 | 3.39   | 3.32   |
| 424065   | E13-01K♣    | SPST NO      | Roller 1.391"L | 15A @ 125/250VAC   | Brass               | Brass          | Brass                       | Silver-cadmium oxide | 4.59        | 4.53   | 4.49   |
| 424129   | E13-11K♣    | SPST NO      | Roller 1.391"L | 15A @ 125/250VAC   | Brass               | Brass          | Brass                       | Silver-cadmium oxide | 5.79        | 4.29   | 3.48   |
| 424145   | E13-50K♣    | SPDT         | Roller 1.645"L | 15A @ 125/250VAC   | Brass               | Brass          | Brass                       | Silver-cadmium oxide | 2.95        | 2.81   | 2.67   |
| 424161   | E14-00H♣    | SPDT         | Lever 1.500"   | 25A @ 125/250VAC   | Silver-plated brass | Copper         | Silver-pl. beryllium copper | Silver-cadmium oxide | 4.39        | 3.48   | 2.84   |
| 424250   | E14-50K♣    | SPDT         | Roller 0.902"L | 25A @ 125/250VAC   | Silver-plated brass | Copper         | Silver-pl. beryllium copper | Silver-cadmium oxide | 3.39        | 3.22   | 3.06   |
| 424348   | E19-50K♣    | DPDT         | Roller 0.902"L | 15A @ 125/250VAC   | Brass               | Brass          | Brass                       | Silver-cadmium oxide | 10.19       | 7.52   | 6.10   |
| 424381   | E20-00K♣    | DPDT         | Roller 0.652"L | 20A @ 125/250VAC   | Silver-plated brass | Copper         | Silver-pl. beryllium copper | Silver-cadmium oxide | 6.85        | 6.48   | 5.96   |
| 424436   | E20-50K♣    | DPDT         | Roller 0.902"L | 20A @ 125/250VAC   | Silver-plated brass | Copper         | Silver-pl. beryllium copper | Silver-cadmium oxide | 7.65        | 7.26   | 6.51   |
| 425164   | E30-00K♣    | SPDT         | Roller 0.652"L | 30.1A @ 125/250VAC | Silver-plated brass | Copper         | Silver-pl. beryllium copper | Silver-cadmium oxide | 3.85        | 3.79   | 3.75   |

See Our Cherry E19A & G13 Series General Purpose Snap-Action Offering at [www.Jameco.com/Prod/CherryMiniSnap](http://www.Jameco.com/Prod/CherryMiniSnap)



## Snap-Action Switches

### A Series General Purpose

- Low cost—high performance
- Insulation resistance: 1000MΩ min.
- Contact rating: 30.1A @ 277VAC
- Operating temp.: -55°C to +85°C

### LC Series Subminiature Precision

- Long life and high electrical capacity
- Insulation resistance: 1000MΩ min.
- Contact rating: 10.1A @ 250VAC
- Operating temp.: -25°C to +85°C

### MM Series Miniature Subminiature Precision

- Low level and power switching
- Increased overtravel
- Contact rating: 7A @ 250VAC
- Operating temp.: -55°C to +135°C
- Long electrical & mechanical life
- Reliable snap-acting mechanism
- Insulation resistance: 1000MΩ min.



A Series



LC Series



TF Series

### TM Series Miniature

- Cost-effective solution
- Insulation resistance: 1000MΩ min.
- Contact rating: 15A @ 250VAC
- Operating temp.: -55°C to +150°C

### TF Series Miniature

- Broad range of operating forces
- Insulation resistance: 1000MΩ min.
- Contact rating: 25A @ 277VAC
- Operating temp.: -40°C to +85°C

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See Our Complete C&K Snap-Action Switch Offering at [www.Jameco.com/Prod/CKSnap](http://www.Jameco.com/Prod/CKSnap)

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

| Color Code Legend        |
|--------------------------|
| New Sale Lower\$ QtySave |



# Snap-Action, Thumbwheel & Pushwheel Switches

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |



## Miniature Snap-Action Switches



617844

| Part No. | Product No. | Current Rating | Contact Form | Actuator         | Terminals | Pricing |        |        |
|----------|-------------|----------------|--------------|------------------|-----------|---------|--------|--------|
|          |             |                |              |                  |           | 1       | 25     | 50     |
| 617596   | 35-824▲     | 10A @ 125VAC   | SPDT         | Lever            | 0.187" QC | \$3.09  | \$2.99 | \$2.90 |
| 617609   | 35-827▲     | 10A @ 125VAC   | SPDT         | Lever roller     | 0.187" QC | 5.15    | 4.83   | 4.56   |
| 617650   | 35-840▲     | 10A @ 125VAC   | SPDT         | Lever            | 0.187" QC | 5.65    | 4.01   | 3.82   |
| 617668   | 35-842▲     | 15A @ 125VAC   | SPDT         | Lever            | 0.187" QC | 4.09    | 3.75   | 3.61   |
| 617676   | 35-844▲     | 15A @ 125VAC   | SPDT         | Lever            | 0.187" QC | 2.79    | 2.42   | 2.07   |
| 617684   | 35-846▲     | 10A @ 125VAC   | SPDT         | Lever roller     | 0.187" QC | 3.65    | 3.09   | 2.61   |
| 617692   | 35-848▲     | 15A @ 125VAC   | SPDT         | Lever roller     | 0.187" QC | 3.49    | 2.94   | 2.46   |
| 617801   | 35-872▲     | 10A @ 125VAC   | SPST NO      | Pin plunger      | 0.187" QC | 3.15    | 2.68   | 2.29   |
| 617836   | 35-878▲     | 10A @ 125VAC   | SPDT         | Simulated roller | 0.187" QC | 4.55    | 4.24   | 4.01   |
| 617844   | 35-880▲     | 10A @ 125VAC   | SPDT         | Lever            | 0.187" QC | 2.39    | 2.21   | 2.07   |
| 622475   | 35-3932▲    | 20A @ 250VAC   | SPDT         | Pin plunger      | 0.187" QC | 5.95    | 5.20   | 4.53   |
| 622483   | 35-3934▲    | 10A @ 125VAC   | SPDT         | Lever            | 0.187" QC | 2.55    | 2.23   | 1.96   |
| 622521   | 35-3945▲    | 15A @ 277VAC   | SPDT         | Lever            | 0.187" QC | 5.65    | 4.95   | 4.31   |



## General Purpose Snap-Action Switches



617019

| Part No. | Product No. | Current Rating | Contact Form | Actuator | Terminals    | Pricing |        |        |
|----------|-------------|----------------|--------------|----------|--------------|---------|--------|--------|
|          |             |                |              |          |              | 1       | 10     | 100    |
| 617001   | 35-461▲     | 15A @ 480VAC   | SPDT         | Plunger  | 0.250" QC    | \$2.25  | \$2.07 | \$1.91 |
| 617019   | 35-462▲     | 15A @ 480VAC   | SPDT         | Plunger  | 0.250" QC    | 4.79    | 4.39   | 4.02   |
| 617027   | 35-463▲     | 15A @ 480VAC   | SPDT         | Roller   | 0.250" QC    | 5.29    | 4.82   | 4.41   |
| 617941   | 35-982▲     | 20A @ 125VAC   | SPDT         | Plunger  | Solder/screw | 14.65   | 12.53  | 10.56  |
| 622441   | 35-3908▲    | 20A @ 125VAC   | SPDT         | Plunger  | Screw        | 13.65   | 11.99  | 10.40  |
| 622467   | 35-3916▲    | 20A @ 125VAC   | SPDT         | Lever    | Screw        | 9.95    | 8.55   | 7.28   |



## GP Series Heavy-Duty Snap-Action Switches

- Ultra small travel differential
- Contact form: SPDT
- Mechanical life tested to 1 million cycles
- Contact rating: 15A @ 250VAC (UL); 15A @ 250V (VDE)
- Dielectric strength: 1000VAC 50/60Hz for 1 minute
- Insulation resistance: 100MΩ at 500VDC
- Initial contact resistance: 15mΩ max.
- Temp. range: -20°C to +85°C
- Case & cover: phenolic
- Spring: beryllium copper alloy
- Contacts: silver alloy
- Terminals: brass screw and copper alloy solder
- Lever actuator: stainless steel
- Roller type lever



511927



511935

| Part No. | Product No. | Terminals     | 1       | 10     | 100    |
|----------|-------------|---------------|---------|--------|--------|
| 511919   | GPSCRG01▲   | Solder metric | \$12.75 | \$8.48 | \$7.31 |
| 511927   | GPSCRG11▲   | Solder US     | 7.35    | 6.98   | 6.27   |
| 511935   | GPSCRH01▲   | Solder metric | 18.59   | 12.37  | 10.67  |
| 511943   | GPSCRH02▲   | Solder metric | 18.59   | 12.37  | 10.67  |
| 511951   | GPSCRH11▲   | Solder US     | 18.95   | 12.62  | 10.52  |
| 511960   | GPSCRH12▲   | Solder US     | 18.59   | 12.37  | 10.31  |
| 511978   | GPSCRM01▲   | Solder metric | 9.65    | 6.43   | 5.54   |
| 511986   | GPSCRM11▲   | Solder US     | 9.85    | 6.56   | 5.47   |
| 511994   | GPSCRR01▲   | Solder metric | 8.79    | 5.86   | 5.05   |
| 512006   | GPSCRR11▲   | Solder US     | 4.99    | 4.71   | 4.23   |
| 512014   | GPSCRS01▲   | Solder metric | 9.65    | 6.43   | 5.54   |
| 512022   | GPSCRS11▲   | Solder US     | 5.45    | 5.17   | 4.64   |
| 512170   | GPTCRG01▲   | Screw metric  | 12.05   | 8.02   | 6.92   |
| 512188   | GPTCRG11▲   | Screw US      | 12.05   | 8.02   | 6.68   |
| 512196   | GPTCRH01▲   | Screw metric  | 18.59   | 12.37  | 10.67  |
| 512217   | GPTCRH11▲   | Screw US      | 10.49   | 9.96   | 8.95   |
| 512225   | GPTCRH12▲   | Screw US      | 18.95   | 12.62  | 10.52  |
| 512233   | GPTCRM01▲   | Screw metric  | 9.65    | 6.43   | 5.54   |
| 512241   | GPTCRM11▲   | Screw US      | 5.89    | 5.61   | 4.94   |
| 512250   | GPTCRR01▲   | Screw metric  | 8.79    | 5.86   | 5.05   |
| 512268   | GPTCRR11▲   | Screw US      | 8.99    | 5.98   | 4.98   |
| 512276   | GPTCRS01▲   | Screw metric  | 9.65    | 6.43   | 5.54   |
| 512284   | GPTCRS11▲   | Screw US      | 9.85    | 6.56   | 5.47   |

▲ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.



## 3P Series Miniature Pushwheel Switches

- Contact rating: carry – 1A continuous; switch – 0.4W max., 100mA max., 28VDC max.
- Operating voltage: 50mV to 28VDC
- Electrical life: 1,000,000 actuations
- Insulation resistance: 10<sup>9</sup>Ω min. (dry)
- Dielectric strength: 500Vrms min.
- Contact resistance: below 300mΩ typ. @ 2-4VDC, 100mA
- Rotor contacts: gold over nickel over copper alloy
- Stator contacts: hard gold over nickel over copper on epoxy fiberglass
- Pushwheel: polycarbonate
- Housing & pushbutton: polycarbonate (UL94V-0)



| Part No. | Product No. | Terminals                                     | Termination                   | 1       | 10     | 50     |
|----------|-------------|---|-------------------------------|---------|--------|--------|
| 569088   | 3P0210002▲  | BCD 1-2-4-8, snap-in front mount w/ dust lens | Standard PCB                  | \$11.55 | \$9.79 | \$8.39 |
| 569109   | 3P0210A02▲  | BCD 1-2-4-8, snap-in front mount w/ dust lens | Extended PCB with solder pins | 13.39   | 12.20  | 11.09  |



## 3 Series Thumbwheel Switches

- Contact rating: carry – 1A continuous; switch – 100mA max.
- Operating voltage: 50mV to 28VDC or 120VAC
- Electrical life: 100,000 actuations
- Contact resistance: below 100mΩ typical initial @ 2-4VDC @ 100mA
- Insulation resistance: 10<sup>9</sup>Ω min.
- Dielectric strength: 500Vrms min.
- Housing and thumbwheel: ABS plastic
- Rotor contacts: precious metal over copper alloy
- Stator contacts: hard gold over nickel over copper
- Typical applications: test & measurement equipments, industrial equipment, computer devices



577951

| Part No. | Product No. | Terminals                                | Termination  | 1      | 10     | 50     |
|----------|-------------|--|--------------|--------|--------|--------|
| 577846   | 301109000▲  | Decimal, SP 10 pos., snap-in front mount | Standard PCB | \$8.65 | \$7.78 | \$7.69 |
| 577854   | 301119000   | Decimal, SP 10-pos., rear mnt.           | Standard PCB | 9.89   | 9.80   | 9.70   |
| 577862   | 301409100▲  | Resistor decade, snap-in front mount     | Extended PCB | 10.45  | 9.42   | 9.31   |
| 577871   | 302109000▲  | BCD, 10-position, snap-in front mount    | Standard PCB | 8.65   | 7.78   | 7.69   |
| 577900   | 302119000▲  | BCD, 10-position, rear mount             | Standard PCB | 8.65   | 7.78   | 7.69   |
| 577942   | 307109000   | BCH, 16-pos., snap-in fr. mnt.           | Standard PCB | 43.89  | 41.69  | 39.60  |
| 577951   | 307119000▲  | BCH, 16-pos., rear mount                 | Standard PCB | 46.35  | 44.00  | 39.60  |

## 3 Series Thumbwheel Switch Accessories

| Part No. | Product No. | Description                                       | 1      | 10      | 50      |
|----------|-------------|---|--------|---------|---------|
| 577969   | 400402000▲  | Black rear mount end plates, type 1               | \$ .33 | \$ .309 | \$ .285 |
| 578005   | 412701000▲  | Screw 0-80UNF thread, 3-4 front mount             | 1.89   | 1.78    | 1.73    |
| 578013   | 412702000▲  | Screw 0-80UNF thread, 5-7 front mount             | 1.89   | 1.78    | 1.73    |
| 578021   | 412703000▲  | Screw 0-80UNF thread, 8-10 front mount            | 2.59   | 2.06    | 1.85    |
| 578030   | 413402000▲  | Black front mount end plates, type 0              | 1.30   | 1.23    | 1.20    |
| 578048   | 413502000▲  | Blk fr. mnt. blank sections, 0.315" T, type 0 & 3 | 1.59   | 1.49    | 1.45    |

## Alcoswitch

## Pushwheel Switches

- Contact rating: 0.4VA @ 20VDC
- Operating temp: -20°C to +80°C
- Front mount
- Mechanical life: more than 1,000,000 operations

### SMCD Series Mini Bidirectional

- Large visible readout characters
- Protected by dust-sealed windows
- Snap together grouping and snap-in panel mounting minimize installation time and cost

### DPS9 Series Bidirectional

- Dual pushbutton code switches have identical height but differ in width
- Can directly retrofit common thumbwheel switches



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See Complete Alcoswitch Pushwheel Offering at  
[www.Jameco.com/Prod/AlcoPushwheel](http://www.Jameco.com/Prod/AlcoPushwheel)



## Pushbutton Binary Coded Decimal (BCD) Switch

26789 (2 switches shown)

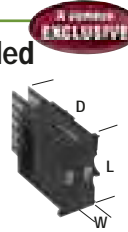
## Thumbwheel Binary Coded Decimal (BCD) Switch

(2 switches shown) 26818

### Pushbutton and Thumbwheel Switch Specifications:

- Contact resistance: 100mΩ max.
- Break before make
- Switches snap together
- 1/16" maximum panel thickness
- Operating temperature: -40°C to +85°C
- Gold plated BE-CU alloy contacts
- Continuous load: 1 amp max.
- 0.15A @ 50VAC/28VDC
- Front snap-tab mounting w/ end plates

| Part No. | Cross Ref. No. | Description                   | Size (L" x W" x D") | Character Height | Pricing |        |        |        |
|----------|----------------|-------------------------------|---------------------|------------------|---------|--------|--------|--------|
|          |                |                               |                     |                  | 1       | 10     | 50     | 100    |
| 26789    | MX72           | 10-position pushbutton        | 1.2 x 0.3 x 1.7     | 0.19"            | \$5.69  | \$5.15 | \$4.65 | \$4.15 |
| 26761    | MXEP2          | Mounting end plates for 26789 | 1.2 x 0.2 x 1.1     | —                | 1.15    | .99    | .89    | .79    |
| 26818    | MX83           | 10-position thumbwheel        | 1.2 x 0.3 x 1.9     | 0.25"            | 4.49    | 3.95   | 3.55   | 3.19   |
| 26770    | MXEP3          | Mounting end plates for 26818 | 1.2 x 0.2 x 1.3     | —                | 1.05    | .88    | .84    | .77    |



## Mini Pushbutton BCD Switch

**NEW**

- Operating temperature: -10°C to +65°C
- 28VDC @ 10A
- Break before make
- Switches snap together
- Positive logic ("0" all open output)
- Size L = 0.59", W = 0.30", S = 1"
- Character height: 0.12"



| Part No. | Cross Ref. # | Description      | 1      | 10     | 100    |
|----------|--------------|------------------|--------|--------|--------|
| 136558   | MX061        | 10-pos. straight | \$3.79 | \$3.41 | \$3.06 |

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## Pushwheel Switches

- Contact resistance: 0.1Ω max.
- Dielectric strength: 500V
- Max. non-switching current: 1A
- Housing material: PPO (noryl)
- Insulating resistance: 10,000MΩ
- Electrical rating: 0.1A/50V
- Mechanical cycle: 10,000,000 operations
- Contacts: WE alloy

### PA Series

- Selector switches with very small dimensions for front-mounting
- Printed circuit board: glass filled epoxy, copper-plated gold over nickel
- Mounting: front mounting, snap-in end caps
- Terminals: gold-plated quick connect terminal or solder pins



| Part No. | Product No. | Description                       | Pos. | 1       | 10      | 50      |
|----------|-------------|-----------------------------------|------|---------|---------|---------|
| 577037   | PABA3000    | Octal (0-7), short PCB            | 8    | \$16.95 | \$15.06 | \$10.40 |
| 577045   | PABA3114    | Octal (0-7), short PCB            | 8    | 18.85   | 16.71   | 11.19   |
| 577053   | PACA3000    | BCD (0-9), short PCB              | 10   | 14.55   | 10.20   | 8.95    |
| 577061   | PACA3100    | BCD (0-9), short PCB              | 10   | 16.35   | 14.47   | 9.68    |
| 577070   | PACA3114    | BCD (0-9), short PCB              | 10   | 16.35   | 14.47   | 9.68    |
| 577088   | PACA4000    | BCD (0-9), extended PCB           | 10   | 17.75   | 15.80   | 10.91   |
| 577096   | PAEA3000    | BCD compliment (0-9), short PCB   | 10   | 22.45   | 20.00   | 13.81   |
| 577109   | PAGA3100    | Hexadecimal (0-9, A-F), short PCB | 16   | 12.65   | 8.83    | 7.75    |
| 577117   | PAGA3114    | Hexadecimal (0-9, A-F), short PCB | 16   | 12.65   | 11.22   | 10.15   |

### PA Series Accessories

| Part No. | Product No. | Description     | 1      | 10     | 50     |
|----------|-------------|-----------------|--------|--------|--------|
| 423599   | 609-0797    | Housing, 7.62mm | \$ .93 | \$ .83 | \$ .69 |

### Decimal/BCD/BCD Compliment/Hexadecimal for PA Series

| Part No. | Product No. | Description                                  | 1      | 10     | 50     |
|----------|-------------|--|--------|--------|--------|
| 482425   | C2KON107    | Solder pins without flange                   | \$5.29 | \$5.00 | \$4.13 |
| 482433   | C2KOP107    | Solder lugs without flange                   | 3.75   | 3.33   | 3.13   |
| 482468   | C2R0P8AD    | Solder pins without flange, for decimal type | 5.15   | 4.86   | 4.02   |



## KS Series Single Pole Switches

- Typical applications: telecommunications, industrial, instrumentation
- Contact resistance: below 100mΩ initial @ 2-4VDC, 100mA
- Dielectric strength: 1,000Vrms
- Actuator: ABS or polycarbonate ABS blend, matte finish, black
- Cap color: black except for P/N 583357 – red
- Positive tactile feel
- Insulation resistance: 1,000MΩ min.
- Case: glass filled nylon (UL94V-0)
- Cap: round depression
- Electrical life: 10,000 actuations
- PC terminals
- Terminal seal: epoxy
- SPST OFF-MOM

| Part No. | Product No. | Contact Rating    | Movable Contacts                       | Stationary Contact/Term.           | 1      | 10     | 100    |
|----------|-------------|-------------------|--|------------------------------------|--------|--------|--------|
| 583306   | KS11R21CBD  | 0.4VA @ 20VAC/VDC | Beryllium copper with gold over nickel | Copper alloy with gold over nickel | \$1.85 | \$1.70 | \$1.36 |
| 583349   | KS11R22CQE  | 25mA @ 50VAC/VDC  | Beryllium copper silver plated         | Copper alloy silver plated         | 1.99   | 1.89   | 1.85   |
| 583357   | KS11R23CQD  | 25mA @ 50VAC/VDC  | Beryllium copper silver plated         | Copper alloy silver plated         | 1.06   | 1.03   | 1.00   |



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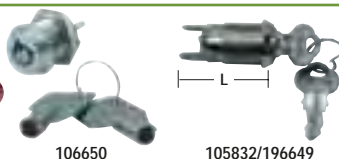
175

## JAMECO ValuePro SPST Round Keylock Switches

- Used in computer & other security systems
- Key removable from 2 positions • Two keys
- Mounting hole = 0.75" except P/N 106650 = 0.5"

196649: all keys are alike

Includes: Mounting nut



| Part No. | Cross Ref. No. | No. Flat, Dia. | Length | Terminal            | Voltage/Current | Pricing |        |        |        |
|----------|----------------|----------------|--------|---------------------|-----------------|---------|--------|--------|--------|
|          |                |                |        |                     |                 | 1       | 10     | 50     | 100    |
| 106650   | KS4B           | 2, 0.21"       | 0.55"  | Barrel              | 125VAC/3A       | \$3.59  | \$3.29 | \$2.89 | \$2.49 |
| 105832   | KS3B           | 2, 0.66"       | 1.48"  | 0.25" quick connect | 125VAC/6A       | 3.99    | 3.59   | 3.29   | 2.99   |
| 196649   | 3313E-M        | 2, 0.66"       | 1.48"  | 0.25" quick connect | 125VAC/6A       | 4.49    | 3.99   | 3.65   | 3.29   |

## Alcoswitch Keylock Switches

### SKF Series

- Contact rating: 1A @ 120VAC resistive

### SKT Series

- Contact rating: Gold – 0.4VA max. @ 20VDC or peak AC; Silver – 3A @ 125VAC/28VDC resistive

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See Our Alcoswitch Keylock Switch Offering at [www.Jameco.com/Prod/AlcoKeylock](http://www.Jameco.com/Prod/AlcoKeylock)



## Keylock Switches

- Contact rating: 2A @ 250VAC/4A @ 28VDC • Includes nut & 2 keys • 621317: 2.1A @ 46VDC (96VAC); includes nut, screw, ring, & key

| Part No. | Product No. | Poles         | Lock Type              | Key Removal | Terminal      | Mounting Hole (ins.) | Pricing |         |         |
|----------|-------------|---------------|------------------------|-------------|---------------|----------------------|---------|---------|---------|
|          |             |               |                        |             |               |                      | 1       | 10      | 50      |
| 621317   | 35-196      | SPST on-off   | 5 disk tumbler         | 2           | Screw         | 0.875                | \$13.69 | \$12.98 | \$12.33 |
| 621843   | 35-3192     | DPDT on-on    | 4 tumbler w/ detent    | 2           | Solder eyelet | 0.760                | 14.45   | 13.36   | 12.22   |
| 621851   | 35-3193     | SPDT on-on    | 6 tumbler w/ tube lock | 2           | 6" wire       | 0.76 x 0.64          | 16.45   | 15.15   | 13.84   |
| 621860   | 35-3194     | SPDT on-on    | 6 tumbler w/ tube lock | 1           | 6" wire       | 0.76 x 0.64          | 15.15   | 13.75   | 12.68   |
| 621878   | 35-3195     | SPDT on-(on)  | 4 tumbler              | 1           | 6" wire       | 0.76 x 0.64          | 14.05   | 12.92   | 11.80   |
| 621886   | 35-3197     | SPDT on-on-on | 4 tumbler              | 1           | Solder lug    | 0.76 x 0.6           | 12.05   | 11.03   | 10.02   |



## Keylock Switches

### A Series 4 & 5 Tumbler 1-4 Poles

- Contact rating: 2.5A @ 125VAC; 350mA @ 125VDC

### BY Series 4 Tumbler Value Added Security

- Contact rating: 4A @ 125VAC/28VDC; 2A @ 250VAC

### H Series 4 & 6 Tumbler Power

- Contact rating: 12A @ 125VAC; 6A @ 250VAC; 1A @ 125VDC

A Series

BY Series

### P Series 4 Tumbler Snap-in

- Contact rating: 4A @ 125VAC; 1A @ 250VAC

### W Series 4 & 6 Tumbler

- Contact rating: 4A @ 125VAC; 2A @ 250VAC

### Y Series 4, 5 & 6 Tumbler

- Contact rating: 4A @ 125VAC/28VDC; 2A @ 250VAC

These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

P Series

Y Series

See Our Complete C&K Keylock Switch Offering at [www.Jameco.com/Prod/CKKeylock](http://www.Jameco.com/Prod/CKKeylock)



## Pushbutton Switches



Fig. 1

Lower \$\$\$



Fig. 2

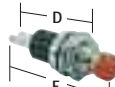


Fig. 3



Fig. 4

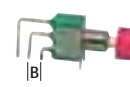


Fig. 5

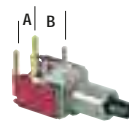


Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10



Fig. 11



Fig. 12

Quantity SAVE

| Part No. | Cross Ref. No. | Fig. | Pins | Mounting Hole Dia. | Type ( ) Momentary | Dimensions (L" x W" x D") | Lead Spacing |     | Contact Rating | Terminal Type       | Button Color | Pricing |        |        |        |        |        |
|----------|----------------|------|------|--------------------|--------------------|---------------------------|--------------|-----|----------------|---------------------|--------------|---------|--------|--------|--------|--------|--------|
|          |                |      |      |                    |                    |                           | A"           | B"  |                |                     |              | 1       | 10     | 100    | 500    | 1000   |        |
| 315432   | R13-23A-R      | 1    | 2    | 31/64"             | SPST off-(on)      | 1.13 (D) x 1.53 (E)       | .20          | —   | 3A @ 125VAC    | Solder              | Red          | \$4.29  | \$1.13 | \$1.05 | \$ .90 | \$ .83 | \$ .78 |
| 315483   | R13-23B-R      | 1    | 2    | 31/64"             | SPST off-on        | 1.13 (D) x 1.53 (E)       | .20          | —   | 3A @ 125VAC    | Solder              | Red          |         | 1.29   | 1.19   | .99    | .92    | .87    |
| 315442   | R13-23A-B      | 1    | 2    | 31/64"             | SPST off-(on)      | 1.13 (D) x 1.53 (E)       | .20          | —   | 3A @ 125VAC    | Solder              | Black        |         | 1.29   | 1.19   | .99    | .92    | .87    |
| 315492   | R13-23B-B      | 1    | 2    | 31/64"             | SPST off-on        | 1.13 (D) x 1.53 (E)       | .20          | —   | 3A @ 125VAC    | Solder              | Black        |         | 1.29   | 1.19   | .99    | .92    | .87    |
| 315504   | R13-23B-BL     | 1    | 2    | 31/64"             | SPST off-on        | 1.13 (D) x 1.53 (E)       | .20          | —   | 3A @ 125VAC    | Solder              | Blue         |         | 1.10   | .99    | .84    | .67    | .51    |
| 315475   | R13-23A-Y      | 1    | 2    | 31/64"             | SPST off-(on)      | 1.13 (D) x 1.53 (E)       | .20          | —   | 3A @ 125VAC    | Solder              | Yellow       |         | 1.10   | .99    | .84    | .67    | .51    |
| 315521   | R13-23B-Y      | 1    | 2    | 31/64"             | SPST off-on        | 1.13 (D) x 1.53 (E)       | .20          | —   | 3A @ 125VAC    | Solder              | Yellow       |         | 1.10   | .99    | .84    | .67    | .51    |
| 315598   | R13-40A-R      | 2    | 2    | 31/64"             | SPST off-(on)      | .98 (D) x 1.56 (E)        | .20          | —   | 3A @ 125VAC    | Solder              | Red          |         | 1.13   | 1.02   | .87    | .70    | .53    |
| 315619   | R13-40B-R      | 2    | 2    | 31/64"             | SPST off-on        | .98 (D) x 1.56 (E)        | .20          | —   | 3A @ 125VAC    | Solder              | Red          |         | 1.59   | 1.43   | 1.22   | .98    | .74    |
| 315580   | R13-40A-B      | 2    | 2    | 31/64"             | SPST off-(on)      | .98 (D) x 1.56 (E)        | .20          | —   | 3A @ 125VAC    | Solder              | Black        |         | 1.35   | 1.22   | 1.04   | .83    | .62    |
| 315601   | R13-40B-B      | 2    | 2    | 31/64"             | SPST off-on        | .98 (D) x 1.56 (E)        | .20          | —   | 3A @ 125VAC    | Solder              | Black        |         | 1.32   | 1.19   | 1.01   | .81    | .61    |
| 26623    | MS102          | 3    | 2    | 1/4"               | SPST off-(on)      | .65 (D) x 1.10 (E)        | —            | .14 | 3A @ 125VAC    | Solder lugs         | Red          |         | .55    | .50    | .45    | .35    | .29    |
| 26649    | MS103          | 3    | 2    | 1/4"               | SPST on-(off)      | .65 (D) x 1.10 (E)        | —            | .17 | 3A @ 125VAC    | Solder lugs         | Black        |         | .55    | .50    | .42    | .34    | .26    |
| 315643   | R13-81-R       | 4    | 2    | 13/64"             | SPST off-(on)      | .44 (D) x .78 (E)         | .08          | —   | .5A @ 125VAC   | PC terminal         | Red          |         | 1.45   | 1.31   | 1.11   | .89    | .67    |
| 154879   | PS11-123       | 5    | 3    | 1/4"               | SPDT on-(on)       | .50 x .27 x .37           | —            | .14 | .5A @ 125VAC   | Solder, right angle | Red          |         | 1.99   | 1.89   | 1.79   | 1.69   | 1.59   |

◆ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product

◆ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.



JAMECO ValuePro

## Pushbutton Switches (Continued)

Quantity SAVE



| Part No. | Cross Ref. No. | Fig. | Pins | Mounting Hole Dia. | Type<br>( ) Momentary | Dimensions<br>(L" x W" x D") | Lead Spacing |      | Contact Rating | Terminal Type      | Button Color | Pricing |        |        |        |        |
|----------|----------------|------|------|--------------------|-----------------------|------------------------------|--------------|------|----------------|--------------------|--------------|---------|--------|--------|--------|--------|
|          |                |      |      |                    |                       |                              | A"           | B"   |                |                    |              | 1       | 10     | 100    | 500    | 1000   |
| 71643    | SWB210         | 6    | 2    | 7/32"              | SPST off-(on)         | .36 x .20 x .33              | .20          | .20  | 1A @ 120VAC    | PC right angle     | Black        | \$2.19  | \$1.99 | \$1.78 | \$1.60 | \$1.39 |
| 202999   | BB16           | 7    | 3    | 1/4"               | SPDT on-on            | .39 x .35 x .35              | .18          | .10  | 0.1A @ 28VAC   | Solder right angle | White        | 1.18    | 1.06   | .90    | .72    | .54    |
| 121305   | CK8121         | 8    | 3    | 1/4"               | SPDT on-(on)          | .52 x .27 x .38              | —            | .185 | 5A @ 125VAC    | Solder lugs        | White        | 3.59    | 3.25   | 2.95   | 2.65   | 2.39   |
| 28063    | PB126          | 8    | 3    | 1/4"               | SPDT on-(on)          | .52 x .28 x .38              | —            | .185 | 5A @ 120VAC    | Solder lugs        | Red          | 3.69    | 3.35   | 2.99   | 2.69   | 2.45   |
| 355451   | J1881          | 9    | 2*   | 3/8"               | SPST on-off, Alt†     | .65 x .52 x .40              | .25          | —    | 2A @ 14VAC     | 5" Pigtail         | White        | 1.19    | 1.07   | .91    | .73    | .57    |
| 355469   | J1882          | 9    | 2*   | 3/8"               | SPST off-(on)         | .65 x .52 x .40              | .25          | —    | 2A @ 14VAC     | 5" Pigtail         | Red          | 1.09    | .98    | .83    | .74    | .66    |
| 174414   | R13-510A       | 10   | 2    | 1/2"               | SPST off-(on)         | .67 (L) x .31 (D)            | —            | .167 | 3A @ 125VAC    | Solder lugs        | Red          | .79     | .78    | .77    | .74    | .69    |

### Other Manufacturers

|        |            |    |    |        |                   |                  |     |     |              |                     |       |        |        |        |        |       |
|--------|------------|----|----|--------|-------------------|------------------|-----|-----|--------------|---------------------|-------|--------|--------|--------|--------|-------|
| 154878 | PS11-123   | 5  | 3  | 1/4"   | SPDT on-(on)      | .50 x .27 x .37  | —   | .14 | 5A @ 125VAC  | Solder, right angle | Red   | \$1.79 | \$1.61 | \$1.37 | \$1.16 | \$.87 |
| 200774 | TP12SHBAQE | 7  | 3  | 7/32"  | SPDT off-(on)     | .32 x .20 x .33  | .20 | .10 | 1A @ 120VAC  | PC right angle      | Black | 4.79   | 4.35   | 3.65   | 2.75   | 1.99  |
| 22200  | J1881      | 11 | 2* | 3/8"   | SPST on-off, Alt† | .65 x .52 x .40  | .25 | —   | 2A @ 14VDC   | 5" Pigtail          | White | 1.09   | .98    | .83    | .67    | .50   |
| 22218  | J1882      | 11 | 2* | 3/8"   | SPST off-(on)     | .65 x .52 x .40  | .25 | —   | 2A @ 14VDC   | 5" Pigtail          | Red   | .99    | .88    | .79    | .71    | .62   |
| 307889 | DS133      | 12 | 2  | 29/64" | SPST off-(on)     | 1.03 x .56 x .46 | —   | —   | 10A @ 125VAC | Solder Lugs         | Black | 4.15   | 3.73   | 3.17   | 2.54   | 1.90  |

† Alt = alternate action

\* Lead wires

JAMECO ValuePro

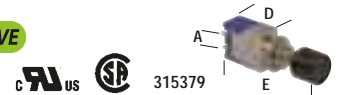
## Miniature Pushbutton Switches

Quantity SAVE

• 6A@125V or 3A@250V

• Epoxy sealed

• Material: Alkyd base (UL94V-0), stainless steel cover



| Part No. | Cross Ref. No. | Pins | Mounting Hole Dia. | Type<br>( ) Momentary | Dimensions<br>(D" x E") | Lead Spacing |    | Contact Rating<br>(A @ VAC) | Terminal Type | Button Color | Pricing |        |        |        |        |
|----------|----------------|------|--------------------|-----------------------|-------------------------|--------------|----|-----------------------------|---------------|--------------|---------|--------|--------|--------|--------|
|          |                |      |                    |                       |                         | A"           | B" |                             |               |              | 1       | 10     | 100    | 500    | 1000   |
| 315395   | PA101A1-B/BL   | 2    | 1/4"               | SPST on-off           | 1.2 x 1.7               | .185         | —  | 6 @ 125                     | Solder        | Black        | \$2.45  | \$2.21 | \$1.87 | \$1.50 | \$1.12 |
| 315388   | PA101A1-R/BL   | 2    | 1/4"               | SPST on-off           | 1.2 x 1.7               | .185         | —  | 6 @ 125                     | Solder        | Red          | 2.79    | 2.53   | 2.28   | 2.05   | 1.93   |
| 315379   | PA102A1-B/BL   | 3    | 1/4"               | SPDT on-on            | 1.2 x 1.7               | .185         | —  | 6 @ 125                     | Solder        | Black        | 2.89    | 2.63   | 2.37   | 2.14   | 1.99   |

### Other Manufacturers

|        |               |   |      |            |           |     |   |          |        |       |        |        |        |        |        |
|--------|---------------|---|------|------------|-----------|-----|---|----------|--------|-------|--------|--------|--------|--------|--------|
| 447072 | TP32Y0030050† | 3 | 1/4" | SPST on-on | 0.7 x 0.8 | .11 | — | 0.4 @ 20 | Solder | Black | \$2.59 | \$2.37 | \$2.13 | \$1.90 | \$1.75 |
|--------|---------------|---|------|------------|-----------|-----|---|----------|--------|-------|--------|--------|--------|--------|--------|

† Sub miniature

## Switchcraft® Button-Switch® & Cord-Switch®

### 297300: Button-Switch®

• SPST-on (on) • Color: black • Mounting hole size: .469" • Panel thickness: .297" max.  
 • Rating: 250mA, 30W maximum, AC, non-inductive load • Compatible with P/N 297502

### 297502: Cord-Switch®

• Copper alloy plated housing and switch bushing • Maximum cable side diameter: .375"  
 • SPST-on (on) red pushbutton switch (same rating as P/N 297300) • Plastic insulation

| Part No. | Product No. | Description   | 1      | 10     | 25     |
|----------|-------------|---------------|--------|--------|--------|
| 297300   | 913         | Button-switch | \$2.85 | \$2.60 | \$2.54 |
| 297502   | ED903       | Cord-switch   | 10.49  | 8.55   | 8.43   |



## Switch Grab Bags

18235: 50 pcs. assorted – toggle, pushbutton, rocker and slide switches

135378: 1 lb. (approx. 135 pcs.) assorted – toggle, pushbutton, rocker and slide switches



| Part No. | Cross Ref. No. | Wt. (lbs.) | 1      | 10     |
|----------|----------------|------------|--------|--------|
| 18235    | GB165          | 0.4        | \$8.75 | \$7.69 |
| 135378   | GB165LB        | 1.0        | 18.95  | 16.95  |





## Standard Pushbutton Switches

• Typical applications: computer equipment & peripherals, telecommunications, networking equipment, instrumentation, detection, medical & test equipment • Mounting hardware included

| Part No. | Product No. | Fig. | Mounting Hole Dia. | Type<br>( ) Momentary | Key<br>Contact Rating | Terminal Type | Button<br>Color/Material | Actuator<br>length | Pricing |        |        |
|----------|-------------|------|--------------------|-----------------------|-----------------------|---------------|--------------------------|--------------------|---------|--------|--------|
|          |             |      |                    |                       |                       |               |                          |                    | 1       | 10     | 100    |
| 621907   | 35-3425     | 1    | 0.50"              | SPST on-off           | 10A @ 125VAC          | Screw         | Chrome metal             | 0.415"             | \$5.15  | \$4.70 | \$4.28 |
| 621915   | 35-3427     | 1    | 0.50"              | SPST NO (on)-off      | 15A @ 125VAC          | Screw         | Chrome metal             | 0.415"             | 4.25    | 3.90   | 3.57   |
| 621923   | 35-3429     | 1    | 0.50"              | SPST NC on-(off)      | 15A @ 125VAC          | Screw         | Chrome metal             | 0.415"             | 4.89    | 4.43   | 4.07   |
| 621958   | 35-3454     | 2    | 0.50"              | SPST NC on-off        | 10A @ 125VAC          | 6" lead wires | Black plastic            | 0.41"              | 4.69    | 4.24   | 4.03   |
| 621966   | 35-3457     | 3    | 0.50"              | SPST NO (on)-off      | 6A @ 125VAC           | Screw         | Black plastic            | 0.212"             | 2.69    | 2.47   | 2.26   |
| 621974   | 35-3458     | 3    | 0.50"              | SPST NC (off)-off     | 3A @ 120VAC           | Screw         | Red plastic              | 0.212"             | 2.89    | 2.65   | 2.42   |
| 622002   | 35-3484     | 4    | 0.641"             | SPST NO off-(on)      | 25A @ 6VDC            | Screw         | Black chrome             | 0.49"              | 10.09   | 9.22   | 9.07   |
| 622011   | 35-3490     | 1    | 0.50"              | SPDT on-off           | 15A @ 125VAC          | Screw         | Chrome metal             | 0.415"             | 6.95    | 6.36   | 5.81   |
| 616850   | 35-420      | 5    | 0.50"              | SPST NO off-(on)      | 3A @ 250VAC           | Solder eyelet | Red plastic              | 0.354"             | 1.25    | 1.13   | 1.03   |
| 616868   | 35-421      | 6    | 0.50"              | SPST NO off-(on)      | 3A @ 250VAC           | Solder eyelet | Red plastic              | 0.244"             | 1.65    | 1.49   | 1.37   |
| 616876   | 35-422      | 6    | 0.50"              | SPST on-off           | 3A @ 250VAC           | Solder eyelet | White plastic            | 0.354"             | 4.55    | 3.96   | 3.41   |
| 616884   | 35-423      | —    | 0.687"             | SPST NO off-(on)      | 3A @ 125VAC           | Solder eyelet | Red plastic              | 0.125"             | 1.79    | 1.65   | 1.54   |
| 616905   | 35-432      | —    | 0.50"              | SPST NC on-(off)      | 6A @ 125VAC           | Solder eyelet | Chrome metal             | 0.468"             | 8.25    | 7.55   | 6.96   |
| 616930   | 35-449      | —    | 0.50"              | SPST on-off           | 6A @ 125VAC           | Screw         | Chrome metal             | 0.415"             | 7.05    | 6.17   | 5.37   |
| 616964   | 35-455      | 7    | 1.02"              | SPST on-off           | 16A @ 125VAC          | 0.250" QC     | Red plastic              | 0.157"             | 5.95    | 5.34   | 4.78   |
| 616972   | 35-457      | 5    | 1.02"              | SPST NO (on)-off      | 16A @ 125VAC          | 0.250" QC     | Red plastic              | 0.157"             | 5.75    | 4.97   | 4.29   |
| 616981   | 35-458      | —    | 0.50"              | SPST NC (off)-off     | 3A @ 120VAC           | Screw         | Red plastic              | 0.212"             | 9.35    | 8.12   | 7.04   |
| 616999   | 35-459      | 5    | 1.02"              | SPST NO (on)-off      | 16A @ 125VAC          | 0.250" QC     | Black plastic            | 0.157"             | 5.19    | 4.59   | 4.07   |
| 617043   | 35-473      | 8    | 0.465"             | SPDT NO/NC            | 15A @ 250VDC          | 0.250" QC     | Red plastic              | 0.283"             | 6.15    | 5.65   | 5.19   |

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

 RoHS compliant product

 This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

Details on page 1.

Color Code Legend  
 New Sale Lower\$ QtySave



## Mini Pushbutton Switches

- Typical applications: computer equipment & peripherals, telecommunications, networking equipment, instrumentation, detection, medical & test equipment
- Mounting hardware included



Fig. 9



Fig. 10



Fig. 11



Fig. 12



Fig. 13



Fig. 14



Fig. 15



Fig. 16



Fig. 17

| Part No. | Product No. | Fig. | Mounting Hole Dia. | Type<br>( ) Momentary | Key<br>Contact Rating | Terminal Type | Button<br>Color/Material | Actuator<br>length | Pricing |        |        |
|----------|-------------|------|--------------------|-----------------------|-----------------------|---------------|--------------------------|--------------------|---------|--------|--------|
|          |             |      |                    |                       |                       |               |                          |                    | 1       | 10     | 100    |
| 621982   | 35-3460     | 9    | 0.375"             | SPST on-off           | 6A @ 125VAC           | 6" lead wires | Brass canopy             | 0.36"              | \$2.89  | \$2.65 | \$2.42 |
| 621991   | 35-3471     | 10   | 0.50"              | SPST NC on-(off)      | 2A @ 120VAC           | Screw         | White round              | 0.465"             | 2.75    | 2.53   | 2.32   |
| 616729   | 35-400      | 11   | 0.172"             | SPST NO off-(on)      | 0.5A @ 125VAC         | Solder lug    | Black pin                | 0.175"             | 4.75    | 4.20   | 3.70   |
| 616737   | 35-402      | 12   | 0.172"             | SPST NC on-off        | 0.25A @ 125VAC        | Solder lug    | Black pin                | 0.175"             | 7.39    | 6.56   | 5.77   |
| 616745   | 35-404      | 13   | 0.250"             | SPDT on-on            | 3A @ 125VAC           | Solder eyelet | Black round              | 0.315"             | 4.99    | 4.50   | 4.05   |
| 616753   | 35-405      | 13   | 0.250"             | DPDT on-on            | 3A @ 125VAC           | Solder eyelet | Black round              | 0.315"             | 6.35    | 5.57   | 4.83   |
| 616761   | 35-406      | 14   | 0.343"             | SPST on-off           | 3A @ 125VAC           | Solder eyelet | Black round              | 0.315"             | 4.55    | 3.95   | 3.43   |
| 616770   | 35-408      | 14   | 0.343"             | SPDT on-on            | 3A @ 125VAC           | Solder eyelet | Black round              | 0.315"             | 4.09    | 3.69   | 3.33   |
| 616788   | 35-409      | 14   | 0.343"             | SPST NO (on)-off      | 3A @ 125VAC           | Solder eyelet | Black round              | 0.315"             | 3.75    | 3.36   | 3.02   |
| 616809   | 35-411      | 15   | 0.431"             | SPST NO (on)-off      | 3A @ 125VAC           | Solder eyelet | Black round              | 0.157"             | .99     | .87    | .77    |
| 616817   | 35-412      | 16   | 0.431"             | SPST NO (on)-off      | 3A @ 125VAC           | Solder eyelet | Black square             | 0.157"             | 3.05    | 2.64   | 2.29   |
| 616825   | 35-413      | 17   | 0.431"             | SPST NO (on)-off      | 3A @ 125VAC           | Solder eyelet | Black rectangle          | 0.157"             | 3.05    | 2.64   | 2.29   |
| 616833   | 35-415      | 18   | 0.5"x0.437"        | SPST NO (on)-off      | 1A @ 125VAC           | 0.187" QC     | Red square               | 0.10"              | 1.45    | 1.27   | 1.11   |
| 616841   | 35-417      | 17   | 0.431"             | SPST NO (on)-off      | 3A @ 125VAC           | Solder eyelet | Red rectangle            | 0.157"             | 3.05    | 2.64   | 2.29   |
| 616948   | 35-450      | 19   | 0.25"              | SPDT NC on-(off)      | 1A @ 120VAC           | Solder eyelet | White pin                | 0.218"             | 6.25    | 5.53   | 4.88   |
| 616956   | 35-451      | 20   | 0.25"              | DPDT NC on-(on)       | 1A @ 120VAC           | Solder eyelet | White pin                | 0.218"             | 8.45    | 7.30   | 6.25   |
| 617051   | 35-475      | 21   | 0.50"              | SPST NO (on)-off      | 0.5A @ 125VAC         | 6.3mm tab     | Black round              | 0.39"              | 4.65    | 4.34   | 4.01   |
| 617115   | 35-491      | 22   | —                  | DPDT (on)-(on)        | 0.5A @ 100VAC         | PCB solder    | Black button             | 0.406"             | 3.55    | 3.41   | 3.28   |
| 617705   | 35-852      | 23   | 0.375"             | SPST on-off           | 6 @ 125VAC            | 6" lead wires | Black canopy             | 0.344"             | 2.55    | 2.40   | 2.27   |



Fig. 18



Fig. 19



Fig. 20



Fig. 21



Fig. 22



Fig. 23



## Lighted Pushbutton Switches

- Typical applications: instrumentation, networking equipment, telecommunications, detection, test equipment

| Part No. | Product No. | Fig. | Mounting Hole Dia. | Type<br>( ) Momentary | Key<br>Contact Rating | Terminal Type | Button<br>Color/Material | Actuator<br>length | Pricing |         |         |
|----------|-------------|------|--------------------|-----------------------|-----------------------|---------------|--------------------------|--------------------|---------|---------|---------|
|          |             |      |                    |                       |                       |               |                          |                    | 1       | 10      | 100     |
| 621894   | 35-3412     | 24   | 0.638"             | SPDT NC/NO            | 4A @ 250VAC           | Solder eyelet | Rectangle                | 0.196"             | \$21.89 | \$19.98 | \$18.25 |
| 621931   | 35-3432     | 25   | 0.638"             | SPDT NC/NO            | 4A @ 250VAC           | Solder eyelet | Rectangle                | 0.196"             | 14.45   | 13.21   | 12.02   |
| 617078   | 35-480      | 26   | 1.1"x0.88"         | SPST on-off           | 10A @ 125VAC          | 0.250" QC     | Red square               | 0.36"              | 7.59    | 6.94    | 6.34    |
| 617094   | 35-484      | 26   | 1.1"x0.88"         | SPST on-off           | 10A @ 125VAC          | 0.250" QC     | Green square             | 0.36"              | 7.59    | 6.94    | 6.34    |
| 617107   | 35-490      | 27   | 0.563"             | DPDT on-off           | 8A @ 125VAC           | PCB solder    | Round orange             | 0.75"              | 22.79   | 21.51   | 20.26   |

| Part No. | Product No. | Fig. | Description                | 1      | 10     | 100    |
|----------|-------------|------|----------------------------|--------|--------|--------|
| 621940   | 35-3435     | 28   | Green square lens and bulb | \$2.75 | \$2.52 | \$2.31 |

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Fig. 24



Fig. 25



Fig. 26



Fig. 27

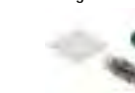


Fig. 28



## Pushbutton Switches

- Contact rating: 3A @ 125VAC • 2-pin • Lead type: solder terminal
- 164566/164639: Contact rating: .5A @ 125VAC
- 164582/164671: Contact rating: 1A @ 125VAC
- 106112: Contact rating: 3A @ 110VAC

### Miniature Soft Touch Switches

| Part No. | Product No. | Fig. | Type<br>( ) Momentary | Dimensions       | Lead<br>Spacing | Thread<br>Diameter | Button<br>Color | Pricing |        |        |        |
|----------|-------------|------|-----------------------|------------------|-----------------|--------------------|-----------------|---------|--------|--------|--------|
|          |             |      |                       |                  |                 |                    |                 | 1       | 10     | 100    | 500    |
| 164494   | DS450R      | 1    | SPST off-on           | 1.2"L x .59"Dia. | .175"           | .387"              | Red             | \$2.09  | \$2.05 | \$1.97 | \$1.88 |
| 164486   | DS463R      | 1    | SPST off-(on)         | 1.2"L x .59"Dia. | .175"           | .387"              | Red             | 2.15    | 2.05   | 1.95   | 1.85   |
| 164523   | DS466R      | 2    | SPST off-(on)         | 1.2"L x .60"Sq.  | .160"           | .383"              | Red             | 1.95    | 1.87   | 1.81   | 1.74   |
| 164558   | DS471R      | 3    | SPST off-(on)         | 1.2"L x .75"Sq.  | .160"           | .387"              | Red             | 2.39    | 2.29   | 2.19   | 2.09   |

### Standard Touch Switches

| Part No. | Product No. | Fig. | Type<br>( ) Momentary | Dimensions       | Lead<br>Spacing | Thread<br>Diameter | Button<br>Color | Pricing |        |        |        |
|----------|-------------|------|-----------------------|------------------|-----------------|--------------------|-----------------|---------|--------|--------|--------|
|          |             |      |                       |                  |                 |                    |                 | 1       | 10     | 100    | 500    |
| 164566   | MS402R      | 4    | SPST off-(on)         | .73"L x .22"Dia. | .078"           | .190"              | Red             | \$1.15  | \$1.14 | \$1.10 | \$1.06 |
| 164582   | DS016B      | 5    | SPST off-(on)         | .88"L x .46"Dia. | .220"           | .354"              | Black           | 1.59    | 1.54   | 1.48   | 1.42   |
| 164639   | MS3120R     | 6    | SPST off-(on)         | 1.1"L x .31"Dia. | .175"           | .268"              | Red             | 1.65    | 1.49   | 1.34   | 1.26   |
| 164671   | NS801MOB    | 7    | SPST off-(on)         | 1.1"L x .59"Dia. | .213"           | .468"              | Black           | 2.45    | 2.05   | 1.94   | 1.77   |
| 106112   | DS412R      | 8    | SPST off-(on)         | .63"L x .66"Dia. | .275"           | .750"              | Red             | 1.05    | 1.03   | .99    | .98    |

\* Solder lugs



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



## Pushbutton Switches

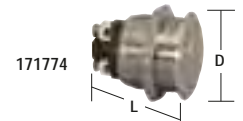
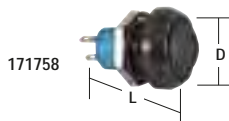
### IP and AV Series Panel Mount Pushbutton Switches




#### 171758 /171766: IP Series

- Initial contact resistance: 50mΩ max.
- Insulation resistance: 1GΩ min. @ 500VDC
- Mounting hole: 1/2"Dia.
- Dielectric strength: 1500Vrms min.
- Mechanical life: 1,000,000 cycles min.

#### 171774: AV Series

- Initial contact resistance: 10mΩ max.
- Insulation resistance: 1000MΩ min.
- Mounting hole: 3/4"Dia.
- Dielectric strength: 1000Vrms min.



| Part No. | Product No.  | Pins | Type<br>( ) Momentary | Dimensions |       |       | Lead<br>Spacing | Contact<br>Rating | Terminal<br>Type | Pricing |        |        |        |
|----------|--|------|-----------------------|------------|-------|-------|-----------------|-------------------|------------------|---------|--------|--------|--------|
|          |  |      |                       | L          | W     | D     |                 |                   |                  | 1       | 10     | 100    | 250    |
| 171758   | IPR3SAD2      | 2    | SPST off-(on)         | 0.82"      | —     | 0.46" | 0.19"           | 0.2A @ 250VAC     | Solder           | \$10.39 | \$9.35 | \$8.45 | \$7.49 |
| 171766   | IPC3SAD6      | 2    | SPST off-(on)         | 0.82"      | 0.69" | 0.46" | 0.19"           | 0.2A @ 250VAC     | Solder           | 10.39   | 9.35   | 8.45   | 7.49   |
| 171774   | AV191003C900  | 2    | SPST off-(on)         | 1.20"      | —     | 0.87" | 0.37"           | 0.2A @ 48VDC      | Screw            | 11.95   | 10.84  | 9.75   | 8.79   |



## Panel Mount/Line Interrupt Pushbutton Switches

- UL 94V-0 flammability rating

### E65/E68/E69/E75/E77/E78/E79/

### F68/F69/F78/F79 Series Snap-In Panel Mount

- UL1054 rating: E65/E75: 16A, 125/250VAC; E68/E78/F68/F78: 0.1A, 125VAC; E69/E79/F69/F79: 10A, 125/250VAC; E77: 0.1A, 125VAC
- Long-life coil spring, snap-action mechanism
- Temp. rating: -40°C to +85°C
- Electrical life @ rated load: 6,000 cycles min.

### F81/F82/F83 Series Line Interrupt

- UL1054 rating: F81: 10A, 125/250VAC; F82: 16A, 125/250VAC; F83: 0.1A, 125/250VAC
- Double make/break shorting bars
- High overtravel
- Temp. rating: -25°C to +85°C
- Snap-in panel mounting

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E Series



F Series

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







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## 8020 Series Snap-Acting Momentary Pushbutton Switches

- Positive tactile feel
- Typical applications: instrumentation, computer peripherals, telecommunications equipment
- Contact form: SPDT ON-MOM
- Electrical life: 60,000 make and break cycles @ full load
- Cap and frame: nylon, black
- Contact resistance: below 50mΩ typical initial @ 2-4VDC, 100mA
- Switch support: brass or steel, tin plated
- Common contact & all terminals: copper alloy with gold plate over nickel
- N.O. & N.C. contacts: 8121 series – coin silver with gold plate over nickel; 8125 series – copper alloy with gold plate over nickel
- Plunger: glass filled nylon or glass filled polyester (UL94V-0)
- Plunger height: 0.218"
- Length: 1.03"
- Dielectric strength: 1,000Vrms
- Terminal seal: epoxy
- Insulation resistance: 1,000MΩ min.
- Case: glass filled nylon 6/6 or diallyl phthalate (UL94V-0)
- Housing: stainless steel



Includes: Nut, locking ring, & lockwasher

| Part No. | Product No.   | Contact Rating    | Contact Plating  | Bushing         | Terminal        | Description                  | 1      | 10     | 100    | 500    |
|----------|---|-------------------|------------------|-----------------|-----------------|------------------------------|--------|--------|--------|--------|
| 576350   | 8121J81Z3GE22  | 1A @ 120VAC/28VDC | Gold over silver | —               | Quick connect   | Snap-in w/ frame             | \$7.89 | \$7.22 | \$6.87 | \$6.52 |
| 575744   | 8121J83ZGE22  | 1A @ 120VAC/28VDC | Gold over silver | —               | Solder lug      | Snap-in w/ frame & flush cap | 8.15   | 8.05   | 7.98   | 7.60   |
| 575752   | 8121J85ZGE22   | 1A @ 120VAC/28VDC | Gold over silver | —               | Solder lug      | Snap-in w/ frame & LED       | 9.95   | 9.08   | 7.78   | 7.05   |
| 575664   | 8121SD2GE      | 1A @ 120VAC/28VDC | Gold over silver | 0.280"H, keyway | Solder lug      | Standard plunger             | 7.35   | 6.51   | 5.50   | 4.18   |
| 576000   | 8121SHZGE      | 1A @ 120VAC/28VDC | Gold over silver | 0.250"H, flat   | Solder lug      | Standard plunger             | 7.35   | 6.96   | 5.48   | 4.79   |
| 576376   | 8125J81ZBE22   | 0.4VA @ 20VAC/VDC | Gold             | —               | Solder lug      | Snap-in                      | 5.79   | 5.51   | 4.34   | 3.80   |
| 575613   | 8125J82ZBE22   | 0.4VA @ 20VAC/VDC | Gold             | —               | Solder lug      | Snap-in w/ frame for LED     | 5.89   | 5.61   | 4.42   | 3.86   |
| 575939   | 8125SD9ABE     | 0.4VA @ 20VAC/VDC | Gold             | 0.280"H, keyway | Right angle PCB | Standard plunger             | 5.49   | 5.21   | 4.11   | 3.59   |
| 576018   | 8125SHCBE      | 0.4VA @ 20VAC/VDC | Gold             | 0.250"H, flat   | PC terminal     | Standard plunger             | 5.15   | 4.87   | 3.83   | 3.35   |
| 575998   | 8125SHZBE      | 0.4VA @ 20VAC/VDC | Gold             | 0.250"H, flat   | Solder lug      | Standard plunger             | 5.05   | 4.77   | 3.76   | 3.29   |

### UL/CSA Versions

|        |  |                   |                  |               |            |                               |        |        |        |        |
|--------|--|-------------------|------------------|---------------|------------|-------------------------------|--------|--------|--------|--------|
| 596799 | U811SH2GE  | 1A @ 120VAC/28VDC | Gold over silver | 0.250"H, flat | Solder lug | Standard plunger, SPDT ON-MOM | \$9.25 | \$8.77 | \$6.78 | \$5.48 |
| 596801 | U821SH2ZGE  | 1A @ 120VAC/28VDC | Gold over silver | 0.250"H, flat | Solder lug | Standard plunger, DPDT ON-MOM | 11.25  | 10.31  | 8.24   | 6.44   |

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## Alcoswitch Pushbutton Switches

- MPA Series** • Wire Lug or PC tails/Panel mount • 6A @ 125VAC
- MPB Series** • Subminiature/Panel mount • 3A @ 125VAC
- MPE Series** • Splashproof/Wire lug/Panel mount • 6A @ 125VAC
- MPG Series** • Mustang/Wire lug or PC tails • 6A @ 125VAC
- MPS Series** • Snap action/Wire lug • 3A @ 115VAC

### MSPM Series

- Long Life/Magnetic reed • 1.0VA optimum

### MSPF Series

- Front and rear entry mounts • 0.5A @ 125VAC

### MSP/MSPS Series • 2.5mm travel/Panel mount

- (MSP) 3A @ 125VAC (MSPS) 3A @ 125VAC

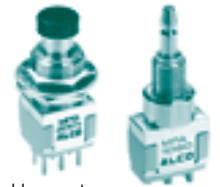
### Illuminated Command Series

- Selector & keylock switches • Pilot Light indicators and lens sets

### Pushbutton Accessories also available

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## Grayhill Pushbutton Switches

- 30/32 Series** • SPST • 1A @ 115VAC
- 39 Series** • 1/4" butt contact • 0.5A @ 115VAC
- 4000 Series** • Wiping contact • 3A @ 115VAC

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See page 181 for Hardware Accessories







## 8060 Series Alternate Action and Momentary Pushbutton Switches

- Long travel
- Long life contact design
- Typical applications: instrumentation, computers & peripherals, telecommunications & networking equipment
- Length: 1.185" • Terminals: solder lug
- Contact rating: 6A @ 120VAC/28VDC; 3A @ 250VAC
- Electrical life: 50,000 make & break cycles @ full load
- Contact resistance: below 20mΩ typical initial @ 2.4VDC, 100mA
- Insulation resistance: 1,000MΩ min.
- Dielectric strength: 1,000VRMS
- Case: glass filled nylon 6/6 or diallyl phthalate (UL94V-0)
- Plunger: glass filled nylon or glass filled polyester 0.710"H w/ 0.375"Dia. cap
- Bushing: brass or zinc, nickel plated 0.3"H flat, high torque
- Cap and frame: nylon, black • Housing: stainless steel
- Switch support: brass or steel, tin plated • Terminal seal: epoxy

Includes: Nut, locking ring, and lockwasher

| Part No. | Product No. | Contact Plating  | 1      | 10     | 100    |
|----------|-------------|------------------|--------|--------|--------|
| 575824   | 8161SHZGE2  | Gold over silver | \$5.55 | \$5.08 | \$4.34 |
| 575795   | 8161SHZQE2  | Silver           | 5.29   | 4.89   | 4.14   |



## 8700 Series Overtravel Pushbutton Switch

- Typical applications: telecommunications, high-end instrumentation, medical & test equipment, detection
- Contact form: SPST OFF-MOM
- Length: 1.65" • Plunger height: 0.390"
- Continuous plunger seal • Heavy duty brass plunger
- Electrical life: 100,000 actuations @ full load
- Contact resistance: below 30mΩ typical initial @ 2-4VDC, 100mA
- Insulation resistance: 10,000Ω min.
- Dielectric strength: 1,000VRMS
- Case: diallyl phthalate (UL94V-0) • Plunger: PBT polyester, black
- Bushing: brass, nickel plated • Terminal seal: epoxy

Includes: Nut and lockwasher

| Part No. | Product No. | Contact Rating  | Terminals         | 1      | 10     | 100    |
|----------|-------------|-----------------|-------------------|--------|--------|--------|
| 576940   | 8732S1HZQE  | 0.4VA@20VAC/VDC | Solder lug (gold) | \$5.15 | \$4.92 | \$4.61 |



## EP Series Sealed Tiny Pushbutton Switches

- Typical applications: telecommunications & networking equipment, computers & peripherals, instrumentation & control
- Sealed against solder & cleaning processes
- Length: 0.872" • Contact form: SPDT ON-MOM
- Electrical life: 30,000 make & break cycles @ full load
- Insulation resistance: 1,000MΩ min.
- Switch support: brass, tin plated
- Case & bushing (unthreaded): glass filled nylon 6/6 (UL904V-0); surface mount – high temp. glass filled nylon 4/6 (UL94V-0)
- Plunger: thermoplastic polyester or glass filled nylon (UL04V-0); surface mount – high temp. glass filled nylon 4/6 (UL94V-0) 0.215"H
- Snap-fitting actuator accepts standard caps
- Contact rating: 0.4VA @ 20VAC/VDC
- Contact resistance: below 20mΩ typical initial @ 2-4VDC, 100mA
- Dielectric strength: 1,000VRMS
- Contacts & terminals: copper alloy • Terminal seal: epoxy

| Part No. | Product No. | Plunger/Bushing                     | Contacts           | Description               | 1      | 10     | 100    | 500    |
|----------|-------------|-------------------------------------|--------------------|---------------------------|--------|--------|--------|--------|
| 584093   | EP12FPD1ABE | Flush plunger, unthreaded bushing   | PC terminals, gold | Right angle               | \$5.55 | \$5.12 | \$4.06 | \$3.20 |
| 584157   | EP12SD1V3BE | 0.215"H plunger, unthreaded bushing | Gold               | Vertical mount, V-bracket | 6.45   | 5.12   | 4.06   | 3.20   |
| 584106   | EP12SD1ABE  | 0.215"H plunger, unthreaded bushing | PC terminals, gold | Right angle               | 5.69   | 5.38   | 4.06   | 3.58   |
| 584122   | EP12SD1CBE  | 0.215"H plunger, unthreaded bushing | PC terminals, gold | Standard                  | 5.35   | 5.06   | 3.82   | 3.37   |



## TP Series Tiny Pushbutton Switches

- Typical applications: telecommunications & networking equipment, computers & peripherals, instrumentation & control
- Electrical life: TP12 – 30,000 ; TP21 – 60,000 make & break cycles @ full load
- Contact resistance: below 20mΩ typical initial @ 2-4VDC, 100mA
- Dielectric strength: 1,000VRMS
- Plunger: thermoplastic polyester (UL94V-0), 0.155"H
- Housing: stainless steel
- Insulation resistance: 1,000MΩ min.
- Case: glass filled nylon 6/6 or diallyl phthalate (UL94V-0)
- Bushing: brass, nickel plated; 0.220"H flat
- Switch support: brass, tin plated • Terminal seal: epoxy

Includes: Nut, locking ring, & lockwasher

| Part No. | Product No. | Contact Rating    | Contact Form | End Contacts                     | Center Contact & Terminals | Description                    | 1      | 10     | 100    | 500    |
|----------|-------------|-------------------|--------------|----------------------------------|----------------------------|--------------------------------|--------|--------|--------|--------|
| 596588   | TP12SH9ABE  | 0.4VA @ 20VAC/VDC | SPDT ON-MOM  | Copper alloy w/ gold over nickel | Copper w/ gold over nickel | Right angle, PC terminal       | \$6.69 | \$6.39 | \$6.11 | \$3.29 |
| 596596   | TP23SH9AVBE | 0.4VA @ 20VAC/VDC | SPDT ON-MOM  | Copper alloy w/ gold over nickel | Copper w/ gold over nickel | Vert. right angle, PC terminal | 6.69   | 6.39   | 6.11   | 3.29   |
| 596617   | TP12SH9V3BE | 0.4VA @ 20VAC/VDC | SPDT ON-MOM  | Copper alloy w/ gold over nickel | Copper w/ gold over nickel | Vert. mount, V-bracket         | 6.65   | 6.36   | 6.08   | 3.10   |
| 596625   | TP12SHZQE   | 1A @ 120VAC/28VDC | SPDT ON-MOM  | Coin silver, silver plated       | Copper alloy silver plated | Solder lug                     | 6.25   | 5.95   | 5.69   | 3.80   |
| 596633   | TP21SHZQE   | 1A @ 120VAC/28VDC | DPST OFF-MOM | Coin silver, silver plated       | Copper alloy silver plated | Solder lug                     | 9.55   | 9.12   | 8.72   | 5.29   |

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## 8500 Series Subminiature Pushbutton Switches

- Typical applications: detection, telecommunications networking equipment, computers & peripherals
- Contact form: SPST OFF-MOM • Length: 1.047"
- Contact rating: 1A @ 120VAC or 28VDC
- Electrical life: 250,000 actuations @ full load
- Contact resistance: below 3mΩ typical initial @ 2-4VDC, 100mA • Insulation resistance: 1,000MΩ min.
- Case: glass filled phenolic or diallyl phthalate (UL94V-0)
- Cap & frame: nylon, black • Bushing: brass, nickel plated
- Contacts: coin silver, silver plated • Button color: black
- Terminals: copper alloy, silver plated • Terminal seal: epoxy

Includes: Nut and lockwasher

| Part No. | Product No. | Plunger                 | Terminals   | 1      | 10     | 100    |
|----------|-------------|-------------------------|-------------|--------|--------|--------|
| 576296   | 8531MCQE2   | 0.150"H                 | PC Terminal | \$4.25 | \$3.89 | \$3.33 |
| 576325   | 8531MZQE2   | 0.150"H                 | Solder Lug  | 4.19   | 3.80   | 3.26   |
| 576093   | 8531TZQE2   | 15/32" actuator bushing | Solder Lug  | 4.75   | 4.31   | 3.69   |



## E010 Series Sealed Momentary Pushbutton

- Process sealed, withstands soldering & cleaning
- Long life contact design
- Typical applications: instrumentation, telecommunications & networking equipment, computers & peripherals
- Length: 1.322" • Contact form: SPDT ON-MOM
- Contact rating: 4A @ 125VAC/28VDC
- Electrical life: 40,000 make & break cycles @ full load
- Contact resistance: below 20mΩ typical initial @ 2-4VDC, 100mA • Insulation resistance: 1,000MΩ min.
- Dielectric strength: 1,000VRMS
- Case & bushing: glass filled nylon 6/6 (UL94V-0)
- Plunger: glass filled nylon or glass filled polyester (UL94V-0) with internal o-ring seal, 0.222"H • Switch support: brass or steel, tin plated
- Switch support retainer: stainless steel
- Center contacts & all terminals: coin silver, silver plated or copper alloy with gold over nickel • Terminal seal: epoxy

Includes: Nut, locking ring and lockwasher

| Part No. | Product No. | Plunger           | Terminals | 1      | 10     | 100    |
|----------|-------------|-------------------|-----------|--------|--------|--------|
| 581933   | E112SD1V3BE | 0.460"H V-bracket | Gold      | \$6.49 | \$6.10 | \$4.74 |



584157



584106



596588



596617

## GP Series Sealed Ultra-miniature Pushbuttons

- Typical applications: telecommunications & networking equipment, computers & peripherals products, instrumentation
- Ultra-miniature design saves space
- Process compatible, withstands most soldering and washing design
- Sealed construction – internal o-ring & epoxy base
- Contact resistance: below 50mΩ typical initial @ 2-4VDC, 100mA • Contact rating: 0.4VA @ 20VAC/VDC
- Mechanical & electrical life: 40,000 make & break cycles @ full load
- Insulation resistance: 1,000MΩ min. • Dielectric strength: 500Vrms
- Housing and base: glass filled nylon 4/6 (UL94V-0)
- Actuator: glass filled nylon 4/6 (UL94V-0) with internal o-ring seal
- Switch support: brass, tin plated
- Movable contact: copper alloy with gold over nickel
- Stationary contacts: (thru-hole models) copper alloy with gold over nickel
- Terminals: copper alloy with tin-lead over nickel • Terminal seal: epoxy/urethane



584691

| Part No. | Product No. | Contact Form | Terminals    | 1      | 10     | 100    |
|----------|-------------|--------------|--------------|--------|--------|--------|
| 584691   | GP11MCKE    | SPST OFF-MOM | PC terminals | \$4.75 | \$4.34 | \$3.72 |
| 584721   | GP12MCKE    | SPDT ON-MOM  | PC terminals | 5.19   | 4.75   | 4.06   |

## KM Series Subminiature Pushbutton

- Typical applications: alarm systems, computers, detector switch applications
- Reliable contact design • Length: 1.27"
- Contact form: SPST OFF-MOM • Actuator diameter: 0.122"
- Bushing/mounting style: 1/4-40 thread, 0.225"H
- Contact rating: 250mA @ 125VAC/VDC
- Electrical life: 10,000 actuations min. @ full load
- Contact resistance: below 30mΩ typical initial @ 2-4VDC, 100mA
- Insulation resistance: 1,000MΩ min.
- Dielectric strength: 1,000Vrms
- Housing and bushing: nylon 6/6, black (UL94V-2)
- Actuator: nylon 6/6 (UL94V-2) natural, internal o-ring seal
- Movable contact: silver
- Stationary contacts & terminals: copper, silver plated
- Return spring: music wire, phosphor coated
- Mounting nut: brass, nickel plated • Terminal seal: epoxy



| Part No. | Product No. | Terminals | 1      | 10     | 100    |
|----------|-------------|-----------|--------|--------|--------|
| 583171   | KM1101RR05Q | 0.110" QC | \$2.35 | \$2.11 | \$1.81 |

## PN Series Alternate & Momentary Action Pushbutton Switch

- Typical applications: computers & peripherals, instrumentation & measurement equipment, non-power on-off switch applications
- Contact rating: 200mA @ 30VDC
- Electrical life: 10,000 make & break cycles @ full load
- Mechanical life: 10,000 on/off cycles
- Contact resistance: 50mΩ max. initial, 100mΩ max. @ end of full life
- Insulation resistance: 100MΩ min. @ 500VDC
- Dielectric strength: 500VAC min.
- Movable contacts: silver plated phosphor bronze
- Frame: tin plated steel • Actuator: polyacetal
- Base: laminated phenolic • Terminals: silver plated brass
- Return spring: music wire • Detent spring & spring plate: phosphor bronze
- Return spring & retainer ring: nickel plated steel • Terminal seal: epoxy



| Part No. | Product No.  | Contact Form          | 500   | 2500  | 10000 |
|----------|--------------|-----------------------|-------|-------|-------|
| 588449   | PN11SHNA03QE | SPDT MOM non-shorting | \$.75 | \$.72 | \$.69 |

### Pushbutton Switches

- 8600 Series Microminiature • NE-18 Series Mains/Power
- PHA Series Short Stroke
- E20 Series Sealed Snap-Acting Momentary
- Lumotast® 75 Series Illuminated Momentary & Latching



E20 Series

These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

See Our Complete C&K Pushbutton Switch Offering at  
[www.Jameco.com/Prod/CKPushbutton](http://www.Jameco.com/Prod/CKPushbutton)

### 30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 322.

## Alcoswitch Oil-Tight Pushbutton Switches

- Reliant 22 series**
- 6A @ 600VAC
- Metal and plastic bushings
- RM/RT Series**
- 22mm/momentary
- SR Series**
- Pilot light/full voltage



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See Our Alcoswitch Oil-Tight Switches Offering at  
[www.Jameco.com/Prod/AlcoOilTight](http://www.Jameco.com/Prod/AlcoOilTight)

## Alcoswitch Tiny Pushbutton Switches

- TP Series**
- Gold: 0.4VA Max. @ 20VDC; Silver: 1A @ 125VAC
- Straight or right angle
- Single or dual actuators
- Threaded or unthreaded



These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

See Our Alcoswitch Tiny PB Offering at  
[www.Jameco.com/Prod/AlcoTinyPB](http://www.Jameco.com/Prod/AlcoTinyPB)

## Hardware Accessories for C&K Pushbutton Switches

### Snap-In Frames

- Color: black



Fig. 1



Fig. 2

For 7000/8020/8500/E/E010/E020/TP Series  
J50/J60/J80/J90 Actuators (Fig. 1)

| Part No. | Product No. | Panel Thickness | 1     | 10    | 100   |
|----------|-------------|-----------------|-------|-------|-------|
| 578056   | 432602263   | 0.062" ..       | \$.66 | \$.64 | \$.63 |
| 578064   | 432702263   | 0.090" ....     | .66   | .64   | .63   |

For 7000/E Series, J1/J2 Actuators (Fig. 2)

| Part No. | Product No. | Panel Thickness | 1     | 10     | 100    |
|----------|-------------|-----------------|-------|--------|--------|
| 578099   | 452802263   | 0.090" ..       | \$.39 | \$.368 | \$.341 |
| 578072   | 452602263   | 0.125" ....     | .39   | .368   | .341   |

### Toggle Caps

For 7000/9000/E Series

- Height: 0.383"

578646

| Part No. | Product No. | Color       | 1     | 10     | 100   |
|----------|-------------|-------------|-------|--------|-------|
| 578620   | 896801000   | White ..... | \$.51 | \$.486 | \$.42 |
| 578646   | 896803000   | Red .....   | .51   | .501   | .488  |

▲ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

### Caps for .122"Dia. Switch Plunger

.310"Dia. Pushbutton Caps  
for 8020/8060/E010/E020/  
KM11/L Series

| Part No. | Product No. | Color       | 1     | 10    | 100   |
|----------|-------------|-------------|-------|-------|-------|
| 578574   | 801806000   | Green ..... | \$.72 | \$.69 | \$.65 |
| 578540   | 801801000   | White ..... | .71   | .68   | .61   |
| 578558   | 801802000   | Black ..... | .33   | .315  | .297  |
| 578566   | 801803000   | Red .....   | .71   | .68   | .64   |

.375"Dia. Pushbutton Caps  
for 8020/8060/E010/E020/  
KM11/L Series

| Part No. | Product No. | Color       | 1     | 10     | 100    |
|----------|-------------|-------------|-------|--------|--------|
| 578435   | 752701000   | White ..... | \$.39 | \$.368 | \$.341 |
| 578443   | 752702000   | Black ..... | .33   | .315   | .306   |
| 578451   | 752703000   | Red .....   | .53   | .504   | .475   |

.395"Dia. Pushbutton Cap  
for 8020/8050/E010/  
E020/L Series

| Part No. | Product No. | Color       | 1     | 10    | 100   |
|----------|-------------|-------------|-------|-------|-------|
| 578591   | 894102000   | Black ..... | \$.71 | \$.68 | \$.61 |

JAMECO ValuePro

## Slide Switches



109171



161816



- Two mounting flanges
- Top actuation
- Nylon actuator
- Phenolic insulated

| Part No. | Pins | Type       | Description | Housing Material # | Dimensions |     |     | Lead Spacing |     | Contact Rating | Lead Length | Actuator Height | Pricing |        |        |        |
|----------|------|------------|-------------|--------------------|------------|-----|-----|--------------|-----|----------------|-------------|-----------------|---------|--------|--------|--------|
|          |      |            |             |                    | L"         | W"  | D"  | A"           | B"  |                |             |                 | 1       | 10     | 100    | 250    |
| 109171   | 3    | SPDT on-on | PC mount    | Plastic            | .22        | .45 | .23 | —            | .12 | 0.5A @ 50VDC   | .17"        | .15"            | \$ .31  | \$ .26 | \$ .23 | \$ .19 |
| 161816   | 6    | DPDT on-on | PC mount    | Plastic            | .38        | .14 | .13 | .13          | .11 | 0.1A @ 20VDC   | .11"        | .08"            | .62     | .52    | .41    | .307   |

† Plastic — flanges

# Plastic: 6/6 nylon; metal: steel zinc plated



## Slide Switches

- Panel mount
- Black plastic actuator

| Part No. | Product No. | Fig. | Contact Form | Contact Rating           | Terminal Type | 1      | 10     | 100    |
|----------|-------------|------|--------------|--------------------------|---------------|--------|--------|--------|
| 621325   | 35-202      | 1    | SPDT on-on   | 0.3A @ 30VAC             | Solder lug    | \$1.35 | \$1.29 | \$1.23 |
| 621333   | 35-204      | 2    | DPDT on-on   | 0.3A @ 30VAC             | Solder lug    | 1.35   | 1.24   | 1.13   |
| 621341   | 35-201      | 3    | SPDT on-on   | 6A @ 125VAC              | PCB lug       | 1.59   | 1.51   | 1.44   |
| 621472   | 35-222      | 4    | DPDT on-on   | 6A @ 125VAC; 3A @ 250VAC | PCB lug       | 1.25   | 1.15   | 1.06   |
| 621481   | 35-242      | 2    | DPDT on-on   | 11A @ 125VAC             | Solder lug    | 1.65   | 1.56   | 1.48   |



Fig. 1



Fig. 2



Fig. 3



Fig. 4



## Slide Switches



ES Series



GS Series



L Series



S Series



TS Series



V Series

## 1000 Series Miniature

- Epoxy terminal seal – compatible with bottom-wash cleaning
- Contact rating: 0.4VA max. @ 20VAC/DC max. or 6A @ 120VAC/28VDC; 3A @ 250VAC
- Dielectric strength: 1000V<sub>RMS</sub> @ sea level
- Operating temp.: -30°C to +65°C
- Insulation resistance: 1000MΩ min.

## ES Series Sealed Tiny

- Reliable contact design ensures long electrical life
- Contact rating: 0.4VA max. @ 20VAC/DC max.
- Insulation resistance: 1000MΩ min.

## GS Series Sealed Ultraminiature

- Ultraminiature design saves PCB space
- Contact rating: 0.4VA max. @ 20VAC/DC max.
- Dielectric strength: 500V<sub>RMS</sub> @ sea level

## L Series Miniature

- Contact rating: 4A @ 125VAC/28VDC; 2A @ 250VAC; 0.5A @ 125VDC
- Dielectric strength: 1000V<sub>RMS</sub> @ sea level
- Enclosed housing
- Positive detent
- Insulation resistance: 1000MΩ min.

## S Series Standard

- Contact rating: 6A @ 125VAC; 6A @ 250VAC; 1A @ 125VDC or 12A @ 125VAC; 6A @ 250VAC; 1A @ 125VDC or 15A @ 125VAC; 6A @ 250VAC
- Dielectric strength: 1000V<sub>RMS</sub> @ sea level
- Enclosed housing
- Insulation resistance: 1000MΩ min.

## TS Series Tiny

- Reliable contact design ensures long electrical life
- Contact rating: 0.4VA max. @ 20VAC/DC max. or 3A @ 120VAC/28VDC or 1A @ 120VAC/28VDC
- Dielectric strength: 1000V<sub>RMS</sub> @ sea level
- Operating temp.: -30°C to +85°C
- Insulation resistance: 1000MΩ min.

## V Series Power &amp; Line Voltage Select

- Actuators with screwdriver slot
- Contact rating: 10.1A max. @ 125VAC; 4A @ 28VDC; 5A @ 250VAC
- Dielectric strength: 1000V<sub>RMS</sub> @ sea level
- Operating temp.: -30°C to +85°C
- Insulation resistance: 1000MΩ min.

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## PCB Plunger Switch

## Use in Place of Shorting Block

- SPST (on/off)
- Contact rating: 50mA @ 24VDC
- Non-removable plunger
- Size: 0.2"W x 0.1"D x 0.38"H
- Lead length: 0.1"L
- 10 piece minimum

Quantity SAVE

| Part No. | Description    | 10     | 100     | 1000    |
|----------|----------------|--------|---------|---------|
| 172700   | Plunger switch | \$ .10 | \$ .085 | \$ .064 |



## Inline Cord Switch

- Contact form: SPST on-off
- Contact rating: 6A @ 20VDC
- Terminal: solder
- Black plastic body



| Part No. | Product No. | 1      | 10     | 100    |
|----------|-------------|--------|--------|--------|
| 621270   | 35-1851     | \$4.75 | \$4.56 | \$4.38 |

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## Alcoswitch Slide Switches

## MM Series

- Initial contact resistance: 20mΩ max.
- Contacts rated: 100mA @ 30VDC/peak AC
- Double-wipe contacts for low resistance



## MHS Series

- Subminiature slides feature moving contact for positive wiping action
- Contact rating: Silver: 300mA @ 125VAC; Gold: 0.4VA @ 20VDC

## MSS Series

- Compact PC board slide switches upright and right angle
- Silver contacts rated 300mA @ 125VAC

## SS Series

- Contact rating: Gold: 0.4VA max. @ 20VDC; Silver: 100mA @ 30VDC
- Initial contact resistance: 30mΩ max
- Insulation resistance: 100MΩ min.

## SE Series

- Contact rating: 0.4VA @ 20VDC
- Initial contact resistance: 50mΩ max.
- Dielectric strength: 500VAC for 1 min.

## SLS Series

- Initial contact resistance: 30mΩ max.
- Insulation resistance: 500MΩ min.
- Dielectric strength: 500VAC
- Contact rating: 250mA @ 125VAC, 150mA @ 12VDC

## TSS Series

- Pin spacing: 0.100" (2.54mm) on centers
- Non-shortening, gold-plated contacts: 0.4VA max. @ 20VDC/peak AC

## STS Series

- Initial contact resistance: 20mΩ max.
- Wave solderable and washable
- PC mount units, bifurcated contacts rated 300mA @ 125VAC/30VDC

## AS Series

- High temperature antistatic plastic
- Withstand aqueous or solvent cleaning processes
- Auto insertable slides
- Type ASE: extended actuator and Type ASF: DIP package available

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JAMECO ValuePro

EXCLUSIVE

## Rocker Switches

Quantity SAVE



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7

| Part No. | Cross Ref. No. | Fig. | Pins | Type<br>() Momentary | Contact Rating<br>(A @ VAC) | Mounting Hole  | Mounting Type | Terminal Type     | Rocker Color      | Rocker Type | Lead Space |      | Dimensions<br>(L"xW"xD") | Pricing |        |       |
|----------|----------------|------|------|----------------------|-----------------------------|----------------|---------------|-------------------|-------------------|-------------|------------|------|--------------------------|---------|--------|-------|
|          |                |      |      |                      |                             |                |               |                   |                   |             | A"         | B"   |                          | 1       | 10     | 100   |
| 316451   | R13-243A-02    | 1    | 2    | SPST on-off          | 8 @ 125                     | .78"L x .28"W  | Panel mnt     | .187" quick conn. | Black             | Rectangle   | 0.35       | —    | .83 x .37 x .85          | \$1.17  | \$ .99 | \$.74 |
| 316478   | R13-243F-02    | 1    | 2    | SPST (on)-off        | 8 @ 125                     | .78"L x .28"W  | Panel mnt     | .187" quick conn. | Black             | Rectangle   | 0.35       | —    | .83 x .37 x .85          | \$2.05  | \$1.29 | 1.05  |
| 196154   | R30NSA         | 2    | 2    | SPST on-off          | 15 @ 125                    | 1.07"L x .43"W | Panel mnt     | .250" quick conn. | Solid black       | Rectangle   | 0.45       | —    | 1.07 x .42 x .77         | 1.75    | 1.48   | 1.11  |
| 316013   | R13-66A-B-02   | 3    | 2    | SPST on-off          | 16 @ 125                    | .78"L x .52"W  | Panel mnt     | .187" quick conn. | Black top         | Rectangle   | 0.31       | —    | .83 x .59 x .47          | .99     | .86    | .56   |
| 316021   | R13-66A-R-02   | 4    | 2    | SPST on-off          | 16 @ 125                    | .78"L x .52"W  | Panel mnt     | .187" quick conn. | Red top           | Rectangle   | 0.31       | —    | .83 x .59 x .47          | .99     | .86    | .56   |
| 316128   | R13-73B-R-02   | 5    | 3    | SPST on-off          | 10 @ 125                    | .78"L x .52"W  | Panel mnt     | .187" quick conn. | Red illum.        | Rectangle   | 0.35       | 0.35 | .83 x .59 x .87          | 1.25    | 1.06   | .79   |
| 316048   | R13-66B-G-02   | 6    | 3    | SPST on-off          | 16 @ 125                    | .78"L x .52"W  | Panel mnt     | .187" quick conn. | Green illum.      | Rectangle   | 0.31       | 0.31 | .83 x .59 x .47          | 1.19    | 1.02   | .67   |
| 316072   | R13-66D-02     | 6    | 3    | SPDT on-off-on       | 16 @ 125                    | .78"L x .52"W  | Panel mnt     | .187" quick conn. | Black (I-O-I)     | Rectangle   | 0.31       | 0.31 | .83 x .59 x .47          | .99     | .84    | .63   |
| 316110   | R13-73A2-B-02  | 7    | 4    | DPST on-off          | 10 @ 125                    | .78"L x .52"W  | Panel mnt     | .187" quick conn. | Solid black (I-O) | Rectangle   | 0.20       | 0.34 | .83 x .59 x .87          | 1.69    | 1.58   | 1.42  |
| 316153   | R13-73C-R-02   | 7    | 4    | DPST on-off          | 10 @ 125                    | .78"L x .52"W  | Panel mnt     | .187" quick conn. | Red illum.        | Rectangle   | 0.20       | 0.34 | .83 x .59 x .87          | 2.05    | 1.88   | 1.69  |
| 316161   | R13-73C-Y-02   | 7    | 4    | DPST on-off          | 10 @ 125                    | .78"L x .52"W  | Panel mnt     | .187" quick conn. | Yellow illum.     | Rectangle   | 0.20       | 0.34 | .83 x .59 x .87          | 1.32    | 1.12   | .84   |
| 316179   | R13-73C-G-02   | 7    | 4    | DPST on-off          | 10 @ 125                    | .78"L x .52"W  | Panel mnt     | .187" quick conn. | Green illum.      | Rectangle   | 0.20       | 0.34 | .83 x .59 x .87          | 1.32    | 1.12   | .84   |

Blue Part No. = Limited Quantity Available



## Rocker Switches

### Standard Appliance Rocker Switches



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9

| Part No. | Product No. | Fig. | Type<br>() Momentary | Contact Rating<br>(A @ VAC) | Mounting Hole   | Mounting Type | Terminal Type        | Rocker Color        | Rocker Type | Pricing |        |        |
|----------|-------------|------|----------------------|-----------------------------|-----------------|---------------|----------------------|---------------------|-------------|---------|--------|--------|
|          |             |      |                      |                             |                 |               |                      |                     |             | 1       | 10     | 100    |
| 621561   | 35-3030     | 1    | SPST on-off          | 16 @ 125                    | 0.55" x 1.25"   | Panel mount   | 0.250" quick connect | Black w/ red on/off | Rectangle   | \$2.19  | \$1.92 | \$1.68 |
| 622184   | 35-3600     | 1    | SPST on-off          | 15 @ 125                    | 0.83" x 1.45"   | Panel mount   | 0.250" quick connect | Black               | Rectangle   | 3.89    | 3.40   | 2.98   |
| 622192   | 35-3610     | 2    | SPDT on-on           | 15 @ 125                    | 0.83" x 1.45"   | Panel mount   | 0.250" quick connect | Black               | Rectangle   | 4.75    | 4.15   | 3.64   |
| 622205   | 35-3620     | 2    | SPDT on-off-on       | 15 @ 125                    | 0.83" x 1.45"   | Panel mount   | 0.250" quick connect | Black               | Rectangle   | 4.75    | 4.15   | 3.64   |
| 622213   | 35-3630     | 2    | DPST on-off          | 15 @ 125                    | 0.83" x 1.45"   | Panel mount   | 0.250" quick connect | Black               | Rectangle   | 5.49    | 4.79   | 4.18   |
| 622221   | 35-3640     | 2    | DPDT on-on           | 15 @ 125                    | 0.83" x 1.45"   | Panel mount   | 0.250" quick connect | Black               | Rectangle   | 5.95    | 5.19   | 4.53   |
| 622248   | 35-3660     | 2    | DPST (on)-off        | 15 @ 125                    | 0.83" x 1.45"   | Panel mount   | 0.250" quick connect | Black               | Rectangle   | 6.35    | 5.55   | 4.85   |
| 622256   | 35-3670     | 2    | DPST (off)-on        | 15 @ 125                    | 0.83" x 1.45"   | Panel mount   | 0.250" quick connect | Black               | Rectangle   | 6.35    | 5.55   | 4.85   |
| 622264   | 35-3680     | 2    | DPDT (on)-on         | 15 @ 125                    | 0.83" x 1.45"   | Panel mount   | 0.250" quick connect | Black               | Rectangle   | 7.55    | 6.61   | 5.79   |
| 622272   | 35-3690     | 2    | DPDT (on)-off-on     | 15 @ 125                    | 0.83" x 1.45"   | Panel mount   | 0.250" quick connect | Black               | Rectangle   | 7.55    | 6.61   | 5.79   |
| 622281   | 35-3695     | 2    | DPDT (on)-off-(on)   | 15 @ 125                    | 0.83" x 1.45"   | Panel mount   | 0.250" quick connect | Black               | Rectangle   | 7.59    | 7.02   | 6.52   |
| 622299   | 35-3710     | 2    | SPDT on-on           | 16 @ 125                    | 0.55" x 1.25"   | Panel mount   | 0.250" quick connect | Black               | Rectangle   | 2.49    | 2.13   | 1.84   |
| 622301   | 35-3720     | 2    | SPDT on-on           | 16 @ 125                    | 0.55" x 1.25"   | Panel mount   | 0.250" quick connect | Black               | Rectangle   | 2.49    | 2.13   | 1.84   |
| 622361   | 35-3760     | 3    | SPST (on)-off        | 15 @ 125                    | 0.55" x 1.25"   | Panel mount   | 0.250" quick connect | White               | Rectangle   | 2.35    | 2.04   | 1.78   |
| 617211   | 35-620      | 4    | DPST on-off          | 15 @ 125                    | 0.866" x 1.102" | Panel mount   | 0.250" quick connect | Red w/ on/off       | Rectangle   | 3.75    | 3.25   | 2.84   |
| 617238   | 35-640      | 5    | SPDT on-on           | 16 @ 125                    | 1.1" x 0.453"   | Panel mount   | 0.250" quick connect | Black               | Rectangle   | 2.55    | 2.22   | 1.96   |
| 617300   | 35-654      | 6    | DPST on-off          | 20 @ 125                    | 1.0" x 1.125"   | Panel mount   | 0.250" quick connect | Black               | Rectangle   | 3.55    | 2.99   | 2.53   |
| 617473   | 35-695      | 2    | SPDT (on)-off-(on)   | 16 @ 125                    | 0.55" x 1.12"   | Panel mount   | 0.250" quick connect | Black               | Rectangle   | 4.25    | 3.52   | 3.30   |
| 617449   | 35-691      | 7    | SPST on-off          | 16 @ 125                    | 0.55" x 1.125"  | Panel mount   | 0.250" quick connect | Black               | Rectangle   | 2.15    | 1.80   | 1.52   |
| 617457   | 35-693      | 7    | SPST on-off          | 16 @ 125                    | 0.55" x 1.125"  | Panel mount   | 0.250" quick connect | Black w/ red on/off | Rectangle   | 2.15    | 1.90   | 1.71   |
| 617465   | 35-694      | 7    | SPDT on-off-on       | 16 @ 125                    | 0.55" x 1.125"  | Panel mount   | 0.250" quick connect | Black               | Rectangle   | 2.35    | 2.07   | 1.84   |



### Lighted Mini Rocker Switches

| Part No. | Product No. | Fig. | Type<br>() Momentary | Contact Rating<br>(A @ VAC) | Mounting Hole   | Mounting Type | Terminal Type        | Rocker Color       | Rocker Type | Pricing |        |        |
|----------|-------------|------|----------------------|-----------------------------|-----------------|---------------|----------------------|--------------------|-------------|---------|--------|--------|
|          |             |      |                      |                             |                 |               |                      |                    |             | 1       | 10     | 100    |
| 617271   | 35-645      | 8    | SPST on-off          | 10 @ 125                    | 0.755" x 0.508" | Panel mount   | Solder eyelet        | Lighted red LED    | Rectangle   | \$5.15  | \$4.67 | \$4.29 |
| 617289   | 35-646      | 8    | DPST on-off          | 10 @ 125                    | 0.755" x 0.508" | Panel mount   | Solder eyelet        | Lighted red LED    | Rectangle   | 6.05    | 5.28   | 4.76   |
| 617377   | 35-680      | 9    | SPST on-off          | 5 @ 125                     | 0.512" x 0.750" | Panel mount   | 0.187" quick connect | Lighted orange LED | Rectangle   | 5.89    | 4.46   | 3.24   |
| 617385   | 35-681      | 9    | SPST on-off          | 5 @ 125                     | 0.512" x 0.750" | Panel mount   | 0.187" quick connect | Lighted green LED  | Rectangle   | 5.89    | 4.46   | 3.24   |
| 617393   | 35-682      | 8    | SPST on-off          | 5 @ 125                     | 0.512" x 0.750" | Panel mount   | 0.187" quick connect | Lighted red LED    | Rectangle   | 6.49    | 5.07   | 3.77   |

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183



## Rocker Switches (Continued)

### Automotive/Marine Rocker Switches



| Part No. | Product No. | Fig. | Type<br>() Momentary | Contact Rating | Mounting<br>Hole | Mounting<br>Type | Terminal<br>Type   | Rocker<br>Color        | Rocker<br>Type  | Pricing |        |        |
|----------|-------------|------|----------------------|----------------|------------------|------------------|--------------------|------------------------|-----------------|---------|--------|--------|
|          |             |      |                      |                |                  |                  |                    |                        |                 | 1       | 10     | 100    |
| 622029   | 35-3500♣    | 10   | SPST on-off          | 200A @ 12VDC   | 0.83" x 1.45"    | Panel mount      | 0.250" quick conn. | 12V Incandescent amber | Rectangle       | \$6.85  | \$5.95 | \$5.20 |
| 622037   | 35-3505♣    | 10   | SPST on-off          | 200A @ 12VDC   | 0.83" x 1.45"    | Panel mount      | 0.250" quick conn. | 12V Incandescent green | Rectangle       | 6.85    | 5.95   | 5.20   |
| 622045   | 35-3510♣    | 10   | SPST on-off          | 200A @ 12VDC   | 0.83" x 1.45"    | Panel mount      | 0.250" quick conn. | 12V Incandescent red   | Rectangle       | 6.85    | 5.95   | 5.20   |
| 622053   | 35-3515♣    | 10   | SPST on-off          | 20A @ 12VDC    | 0.83" x 1.45"    | Panel mount      | 0.250" quick conn. | 12V Incandescent blue  | Rectangle       | 6.85    | 5.95   | 5.20   |
| 622061   | 35-3520♣    | 10   | DPDT on-off-on       | 200A @ 12VDC   | 0.83" x 1.45"    | Panel mount      | 0.250" quick conn. | 12V Incandescent amber | Rectangle       | 8.85    | 7.70   | 6.73   |
| 622070   | 35-3530♣    | 10   | DPDT on-off-on       | 200A @ 12VDC   | 0.83" x 1.45"    | Panel mount      | 0.250" quick conn. | 12V Incandescent red   | Rectangle       | 8.85    | 7.70   | 6.73   |
| 622088   | 35-3535♣    | 10   | DPDT on-off-on       | 200A @ 12VDC   | 0.83" x 1.45"    | Panel mount      | 0.250" quick conn. | 12V Incandescent blue  | Rectangle       | 8.85    | 7.70   | 6.73   |
| 622096   | 35-3540♣    | 10   | SPST (on)-off        | 200A @ 12VDC   | 0.83" x 1.45"    | Panel mount      | 0.250" quick conn. | 12V Incandescent amber | Rectangle       | 7.05    | 6.15   | 5.39   |
| 622109   | 35-3550♣    | 10   | SPST (on)-off        | 200A @ 12VDC   | 0.83" x 1.45"    | Panel mount      | 0.250" quick conn. | 12V Incandescent red   | Rectangle       | 7.05    | 6.15   | 5.39   |
| 622117   | 35-3560♣    | 10   | DPDT (on)-off-(on)   | 200A @ 12VDC   | 0.83" x 1.45"    | Panel mount      | 0.250" quick conn. | 12V Incandescent amber | Rectangle       | 9.65    | 8.40   | 7.35   |
| 622125   | 35-3565♣    | 10   | DPDT (on)-off-(on)   | 200A @ 12VDC   | 0.83" x 1.45"    | Panel mount      | 0.250" quick conn. | 12V Incandescent green | Rectangle       | 9.65    | 8.40   | 7.35   |
| 622133   | 35-3570♣    | 10   | DPDT (on)-off-(on)   | 200A @ 12VDC   | 0.83" x 1.45"    | Panel mount      | 0.250" quick conn. | 12V Incandescent red   | Rectangle       | 9.65    | 8.40   | 7.35   |
| 622141   | 35-3575♣    | 10   | DPDT (on)-off-(on)   | 200A @ 12VDC   | 0.83" x 1.45"    | Panel mount      | 0.250" quick conn. | 12V Incandescent blue  | Rectangle       | 9.65    | 8.40   | 7.35   |
| 622150   | 35-3580♣    | 11   | SPST on-off          | 15A @ 125VAC   | 0.83" x 1.45"    | Panel mount      | 0.250" quick conn. | None                   | Rectangle (blk) | 5.85    | 5.10   | 4.47   |
| 622168   | 35-3585♣    | 11   | DPDT on-on           | 20A @ 12VDC    | 0.83" x 1.45"    | Panel mount      | 0.250" quick conn. | None                   | Rectangle (blk) | 8.09    | 7.02   | 6.12   |
| 622176   | 35-3590♣    | 11   | DPDT on-off-on       | 20A @ 12VDC    | 0.83" x 1.45"    | Panel mount      | 0.250" quick conn. | None                   | Rectangle (blk) | 8.35    | 7.24   | 6.37   |

### Miniature Rocker Switches

| Part No. | Product No. | Fig. | Type<br>() Momentary | Contact Rating | Mounting<br>Hole | Mounting<br>Type | Terminal<br>Type   | Rocker<br>Color         | Rocker<br>Type | Pricing |        |        |
|----------|-------------|------|----------------------|----------------|------------------|------------------|--------------------|-------------------------|----------------|---------|--------|--------|
|          |             |      |                      |                |                  |                  |                    |                         |                | 1       | 10     | 100    |
| 617123   | 35-602♣     | 12   | SPDT on-on           | 4A @ 125VAC    | 0.35" x 0.734"   | Panel mount      | Solder lug         | Black                   | Rectangle      | \$4.15  | \$3.38 | \$2.71 |
| 617131   | 35-603♣     | 12   | SPDT on-on           | 4A @ 125VAC    | 0.35" x 0.734"   | Panel mount      | Solder lug         | Black                   | Rectangle      | 5.15    | 4.15   | 3.33   |
| 617140   | 35-604♣     | 12   | SPDT on-on           | 4A @ 125VAC    | 0.35" x 0.734"   | Panel mount      | Solder lug         | Black                   | Rectangle      | 4.49    | 3.65   | 2.97   |
| 617158   | 35-605♣     | 13   | SPST on-off          | 8A @ 125VAC    | 0.508" x 0.756"  | Panel mount      | 0.187" quick conn. | Black w/ red "O"        | Rectangle      | 1.75    | 1.41   | 1.14   |
| 617166   | 35-606      | 13   | DPDT on-on           | 8A @ 125VAC    | 0.508" x 0.756"  | Panel mount      | 0.187" quick conn. | Black w/ red indicating | Rectangle      | 2.19    | 1.78   | 1.44   |
| 617174   | 35-607♣     | 13   | SPST on-off          | 11A @ 125VAC   | 0.508" x 0.756"  | Panel mount      | 0.187" quick conn. | Black w/ red indicating | Rectangle      | 1.79    | 1.44   | 1.17   |
| 617182   | 35-608♣     | 13   | DPST on-off          | 8A @ 125VAC    | 0.508" x 0.756"  | Panel mount      | 0.187" quick conn. | Black w/ red indicating | Rectangle      | 2.25    | 1.80   | 1.44   |
| 617191   | 35-609♣     | 13   | SPDT on-on           | 8A @ 125VAC    | 0.508" x 0.756"  | Panel mount      | 0.187" quick conn. | Black w/ red indicating | Rectangle      | 1.65    | 1.32   | 1.07   |
| 617203   | 35-615♣     | 14   | SPDT on-on           | 4A @ 125VAC    | 0.508" x 0.756"  | Panel mount      | 0.187" quick conn. | Black                   | Rectangle      | 4.59    | 3.69   | 2.90   |
| 617246   | 35-642♣     | 15   | SPST on-off          | 10A @ 125VAC   | 0.508" x 0.755"  | Panel mount      | 0.250" quick conn. | Black w/ white "O"      | Rectangle      | 3.45    | 2.89   | 2.44   |
| 617254   | 35-643♣     | 16   | DPST on-off          | 16A @ 125VAC   | 0.483" x 1.021"  | Panel mount      | 0.250" quick conn. | Black w/ white "O"      | Rectangle      | 5.15    | 4.41   | 3.79   |
| 617297   | 35-648♣     | 17   | DPDT on-on           | 10A @ 125VAC   | 0.887" x 0.756"  | Panel mount      | 0.187" quick conn. | Black                   | Rectangle      | 4.55    | 4.19   | 3.88   |
| 617369   | 35-676      | 18   | DPDT on-off-on       | 8A @ 125VAC    | 0.625" x 0.523"  | Panel mount      | Solder lug         | Red                     | Rectangle      | 5.29    | 4.57   | 3.96   |

### Lighted Appliance Rocker Switches



| Part No. | Product No. | Fig. | Type<br>() Momentary | Contact Rating | Mounting<br>Hole | Mounting<br>Type | Terminal<br>Type   | Rocker<br>Color           | Rocker<br>Type | Pricing |        |        |
|----------|-------------|------|----------------------|----------------|------------------|------------------|--------------------|---------------------------|----------------|---------|--------|--------|
|          |             |      |                      |                |                  |                  |                    |                           |                | 1       | 10     | 100    |
| 622310   | 35-3730♣    | 19   | SPST                 | 16A @ 125VAC   | 0.55" x 1.125"   | Panel mount      | 0.250" quick conn. | 125V neon amber           | Rectangle      | \$3.05  | \$2.66 | \$2.33 |
| 622408   | 35-3790♣    | 20   | SPST                 | 15A @ 125VAC   | 0.55" x 1.125"   | Panel mount      | 0.250" quick conn. | 125V neon amber           | Rectangle      | 3.39    | 2.98   | 2.60   |
| 617220   | 35-621♣     | 21   | SPST                 | 16A @ 125VAC   | 0.87" x 1.07"    | Panel mount      | 0.250" quick conn. | 125V neon w/ red lens     | Rectangle      | 5.89    | 5.12   | 4.47   |
| 617318   | 35-655♣     | 22   | DPST                 | 20A @ 125VAC   | 1.00" x 1.125"   | Panel mount      | 0.250" quick conn. | 125V neon red             | Square         | 5.65    | 4.57   | 3.64   |
| 617326   | 35-656♣     | 23   | SPST                 | 15A @ 125VAC   | 1.45" x 0.83"    | Panel mount      | 0.250" quick conn. | 125V neon amber           | Rectangle      | 5.29    | 4.57   | 3.96   |
| 617406   | 35-684♣     | 24   | DPST                 | 10A @ 125VAC   | 0.453" x 1.189"  | Panel mount      | Solder             | 125V neon red             | Rectangle      | 8.29    | 6.50   | 5.02   |
| 617414   | 35-686♣     | 25   | DPST                 | 20A @ 125VAC   | 1.18" x 0.87"    | Panel mount      | 0.250" quick conn. | 125V neon w/red indicator | Square         | 5.95    | 4.99   | 4.26   |
| 617431   | 35-689♣     | 20   | SPST                 | 15A @ 125VAC   | 0.55" x 1.125"   | Panel mount      | 0.250" quick conn. | 125V neon red             | Rectangle      | 3.79    | 3.30   | 2.89   |
| 617481   | 35-696      | 26   | SPST                 | 12A @ 125VAC   | 0.508" x 0.756"  | Panel mount      | 0.250" quick conn. | 125V neon red             | Rectangle      | 2.99    | 2.72   | 2.58   |
| 617334   | 35-660♣     | 27   | SPST                 | 10A @ 30VDC    | 0.55" x 1.125"   | Panel mount      | 0.250" quick conn. | 12V incandescent red      | Rectangle      | 4.45    | 3.69   | 3.04   |
| 617351   | 35-664♣     | 28   | SPST                 | 15A @ 125VAC   | 0.453" x 1.10"   | Panel mount      | 0.250" quick conn. | 12V incandescent green    | Rectangle      | 4.75    | 4.18   | 3.61   |
| 617422   | 35-688♣     | 28   | SPST                 | 15A @ 125VAC   | 0.453" x 1.10"   | Panel mount      | 0.250" quick conn. | 105/120V neon red         | Rectangle      | 3.99    | 3.23   | 2.57   |

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## Rocker Switches



C Series



CA Series



CR Series



DA Series



DF Series



DM Series



E Series



7000 Series

### C Series Power

- Contact rating: 15A @ 125VAC; 10A @ 250VDC
- Insulation resistance: 1000MΩ min. • Positive detent
- Dielectric strength: 2500V<sub>RMS</sub> @ sea level • Snap-in mounting

### CA Series Power

- Contact rating: 15A @ 125VAC; 10A @ 250VDC
- Insulation resistance: 1000MΩ min. • Positive detent
- Dielectric strength: 1000V<sub>RMS</sub> @ sea level • Cosmetic slimline detail

### CR Series Round Single Pole Specialty

- Contact rating: 10A @ 125VAC; 6A @ 250VDC • Nice styling
- Dielectric strength: 1500V<sub>RMS</sub> @ sea level • Insulation resistance: 100MΩ min.

### D Series Miniature Snap-in Power

- Contact rating: 4A @ 125VAC; 2A @ 250VAC or 10A @ 125VAC; 5A @ 250VDC
- Insulation resistance: 1000MΩ min. • PC and quick connect terminals
- Dielectric strength: 1000V<sub>RMS</sub> @ sea level • Low cost

### DA Series Miniature Single Pole

- Contact rating: 16A @ 125VAC, 1/3HP; 10A @ 250VAC 1/2HP
- Insulation resistance: 100MΩ min. • Guards to prevent accidental actuation
- Dielectric strength: 1500V<sub>RMS</sub> @ sea level

### DF Series Power

- Power switching up to 16 A
- Contact rating: 16A @ 125/250VAC
- Dielectric strength: 1000V<sub>RMS</sub> @ sea level
- Insulation resistance: 1000MΩ min.
- Sub-panel and panel mounting
- Multi-position/multi-pole function

### DM Series Miniature Power

- Contact rating: 3A @ 125VAC; 2A @ 250VAC or 10A @ 125VAC; 5A @ 250VAC
- Insulation resistance: 1000MΩ min. • Illuminated or non-illuminated
- Dielectric strength: 1000V<sub>RMS</sub> @ sea level • Quick connect terminals

### E Series Sealed Miniature, ET Series Sealed Subminiature and 7000 Series Miniature

- Sealed terminals prevent contamination during soldering
- Contact rating:
  - E Series:** 0.4VA max. @ 20VAC/DC, 7.5A @ 125VAC/28VDC, 3A @ 250VAC, 5A @ 125VAC/28VDC, 2A @ 250VAC;
  - ET Series:** 0.4VA max. @ 20VAC/DC;
  - 7000 Series:** 0.4VA max. @ 20VAC/DC or 5A @ 120VAC/28VDC; 2A @ 250VDC
- Insulation resistance: 1000MΩ min. • Operating temp.: -30°C to 85°C
- Dielectric strength: 1000V<sub>RMS</sub> @ sea level

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## Rocker Switches



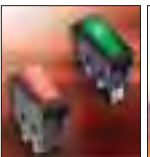
GR Series



PR Series



FR Series



TR Series



RR Series



WR Series

### CR Series Power Rugged

- UL1054 rating: 20A, 125VAC; 16A, 250VAC
- Temp. range: -20°C to +85°C
- Mechanical life: min. 100,000 operations

### FR Series Double Pole 12A Switching

- UL1054 rating: 12A, 125VAC/250VAC
- Temp. range: -20°C to +125°C (UL); -20°C to +55°C (VDE)
- Mechanical life: min. 50,000 operations

### GR Series Compact 15A Switching

- UL1054 rating: 15A, 125VAC; 10A, 250VAC
- Temp. range: -20°C to +85°C
- Mechanical life: min. 50,000 operations

### LR Series Miniature High Current

- UL1054 rating: 10A, 125VAC; 8A, 250VAC
- Temp. range: -20°C to +85°C
- Mechanical life: min. 100,000 operations

### RR Series Round High Current

- UL1054 rating: 10A, 125VAC; 8A, 250VAC
- Temp. range: -20°C to +85°C
- Mechanical life: min. 100,000 operations

### PR Series Panel Mount Power

- UL1054 rating: 6A, 125VAC; 3A, 250VAC
- Smallest agency-approved, low profile
- Temp. range: 0°C to 100°C (VDE); -20°C to +65°C (UL)
- Mechanical life: min. 50,000 operations

### SR Series Miniature

- UL1054 rating: 10A, 125VAC; 6A, 250VAC
- Temp. range: -20°C to +85°C
- Mechanical life: min. 100,000 operations

### TR Series Thin Power

- UL1054 rating: 16A, 125VAC/250VAC
- 16A switching in 11mm wide package
- Temp. range: -20°C to +85°C
- Mechanical life: min. 50,000 operations

### WR Series Double Pole Power

- UL1054 rating: 16A, 125VAC/250VAC
- Rugged construction for 2-pole, high-current applications
- Temp. range: -20°C to +85°C
- Mechanical life: min. 50,000 operations

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## Alcoswitch

## Rocker/Paddle Switches

### TRD Series

- Contact rating: silver 3A max. @ 125VAC
- Dielectric strength: 1000V<sub>RMS</sub> @ sea level
- Insulation resistance: 1000MΩ @ 500VDC
- Contact resistance: 20mΩ max.
- Operating temp.: -20°C to +85°C

### PRA/PRB/PRD Series Snap-In

- Current: 16A @ 125VAC; 10A @ 250VAC
- Dielectric strength: >1000VAC, 1 min.
- Insulation resistance: >100MΩ min.
- Operating life endurance: up to >100,000 operations

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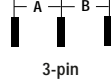
## Standard Toggle Switches

Lower \$\$\$

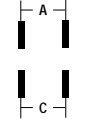


- Panel mount
- Mounting hole diameter: 1/2"
- Full-size round lever for standard and metal
- Full-size flat lever for plastic
- Medium duty
- Keyed plate indicates switch position

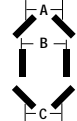
Includes: Mounting hardware and on/off plate



3-pin



2-pin or 4-pin



6-pin



Fig. 1



Fig. 2



Fig. 3



Fig. 4

| Part No. | Cross Ref. No. | Fig. | Pins | Type           | Dimensions<br>L" x W" x D" | Lead Spacing |     |     | Contact Rating<br>(A @ VAC) | Lead Type           | Lever Type | Pricing |        |        |        |        |
|----------|----------------|------|------|----------------|----------------------------|--------------|-----|-----|-----------------------------|---------------------|------------|---------|--------|--------|--------|--------|
|          |                |      |      |                |                            | A"           | B"  | C"  |                             |                     |            | 1       | 10     | 100    | 500    | 1000   |
| 76241    | SWM128         | 1    | 2    | SPST on-off    | 1.00 x .56 x .52           | .23          | —   | —   | 4 @ 125 & 2 @ 250           | Solder lugs         | Round      | \$1.49  | \$1.34 | \$1.14 | \$ .91 | \$ .68 |
| 76232    | SWM125         | 2    | 2    | SPST on-off    | 1.00 x .53 x .51           | —            | —   | —   | 6 @ 125 & 3 @ 250           | 6" lead wire        | Round      | 1.85    | 1.69   | 1.55   | 1.39   | 1.25   |
| 317833   | R13-25A2-05    | 3    | 2    | SPST on-off    | 1.14 x .59 x .62           | .38          | .38 | —   | 10 @ 125 & 6 @ 250          | Solder              | Metal      | 1.99    | 1.75   | 1.39   | 1.22   | 1.13   |
| 317809   | R13-25A1-01    | 3    | 2    | SPST on-off    | 1.14 x .59 x .62           | .38          | .38 | —   | 10 @ 125 & 6 @ 250          | .250" quick connect | Plastic    | 1.39    | 1.29   | 1.15   | 1.02   | .85    |
| 317825   | R13-25A2-01    | 3    | 2    | SPST on-off    | 1.14 x .59 x .62           | .38          | .38 | —   | 10 @ 125 & 6 @ 250          | .250" quick connect | Metal      | 1.99    | 1.75   | 1.38   | 1.27   | 1.10   |
| 318002   | R13-28A-01     | 4    | 2    | SPST on-off    | 1.33 x .75 x .75           | .45          | .61 | .45 | 15 @ 125 & 10 @ 250         | .250" quick connect | Round      | 1.99    | 1.75   | 1.39   | 1.25   | 1.13   |
| 318019   | R13-28A-05     | 4    | 2    | SPST on-off    | 1.33 x .75 x .75           | .45          | .61 | .45 | 15 @ 125 & 10 @ 250         | Solder              | Round      | 1.99    | 1.45   | 1.39   | 1.25   | 1.13   |
| 318027   | R13-28A-06     | 4    | 2    | SPST on-off    | 1.33 x .75 x .75           | .45          | .61 | .45 | 15 @ 125 & 10 @ 250         | M3 Screw            | Round      | 2.25    | 1.99   | 1.55   | 1.39   | 1.25   |
| 317892   | R13-25C1-05    | 3    | 3    | SPDT on-on     | 1.14 x .59 x .62           | .38          | .38 | —   | 10 @ 125 & 6 @ 250          | Solder              | Plastic    | 2.39    | 2.15   | 1.69   | 1.52   | 1.46   |
| 317913   | R13-25C2-05    | 3    | 3    | SPDT on-on     | 1.14 x .59 x .62           | .38          | .38 | —   | 10 @ 125 & 6 @ 250          | Solder              | Metal      | 2.45    | 2.15   | 1.69   | 1.51   | 1.49   |
| 317884   | R13-25C1-01    | 3    | 3    | SPDT on-on     | 1.14 x .59 x .62           | .38          | .38 | —   | 10 @ 125 & 6 @ 250          | .250" quick connect | Plastic    | 2.85    | 2.55   | 2.00   | 1.79   | 1.72   |
| 317905   | R13-25C2-01    | 3    | 3    | SPDT on-on     | 1.14 x .59 x .62           | .38          | .38 | —   | 10 @ 125 & 6 @ 250          | .250" quick connect | Metal      | 2.45    | 2.15   | 1.69   | 1.51   | 1.49   |
| 318086   | R13-28C-01     | 4    | 3    | SPDT on-on     | 1.33 x .75 x .75           | .45          | .61 | .45 | 15 @ 125 & 10 @ 250         | .250" quick connect | Round      | 2.75    | 2.48   | 2.11   | 1.69   | 1.27   |
| 318094   | R13-28C-05     | 4    | 3    | SPDT on-on     | 1.33 x .75 x .75           | .45          | .61 | .45 | 15 @ 125 & 10 @ 250         | Solder              | Round      | 2.75    | 2.48   | 2.11   | 1.69   | 1.27   |
| 318107   | R13-28C-06     | 4    | 3    | SPDT on-on     | 1.33 x .75 x .75           | .45          | .61 | .45 | 15 @ 125 & 10 @ 250         | M3 Screw            | Round      | 2.89    | 2.55   | 1.99   | 1.79   | 1.75   |
| 317930   | R13-25D1-05    | 3    | 3    | SPDT on-off-on | 1.14 x .59 x .62           | .38          | .38 | —   | 10 @ 125 & 6 @ 250          | Solder              | Plastic    | 2.45    | 2.15   | 1.69   | 1.55   | 1.45   |
| 317956   | R13-25D2-05    | 3    | 3    | SPDT on-off-on | 1.14 x .59 x .62           | .38          | .38 | —   | 10 @ 125 & 6 @ 250          | Solder              | Metal      | 2.45    | 2.15   | 1.69   | 1.55   | 1.45   |
| 318123   | R13-28D-01     | 4    | 3    | SPDT on-off-on | 1.33 x .75 x .75           | .45          | .61 | .45 | 15 @ 125 & 10 @ 250         | .250" quick connect | Round      | 2.75    | 2.45   | 2.08   | 1.66   | 1.39   |
| 318131   | R13-28D-05     | 4    | 3    | SPDT on-off-on | 1.33 x .75 x .75           | .45          | .61 | .45 | 15 @ 125 & 10 @ 250         | Solder              | Round      | 2.45    | 2.15   | 1.69   | 1.52   | 1.47   |
| 318141   | R13-28D-06     | 4    | 3    | SPDT on-off-on | 1.33 x .75 x .75           | .45          | .61 | .45 | 15 @ 125 & 10 @ 250         | M3 Screw            | Round      | 2.89    | 2.55   | 1.99   | 1.79   | 1.69   |
| 158060   | JKN32          | 1    | 4    | SPDT on-off    | 1.00 x .56 x .52           | .23          | —   | .23 | 4 @ 125 & 2 @ 250           | Solder lugs         | Round      | 1.15    | 1.05   | .95    | .85    | .75    |
| 76260    | SWM126         | 1    | 6    | DPDT on-on     | 1.12 x .77 x .60           | .30          | .60 | .40 | 5 @ 125 & 3 @ 250           | Solder lugs         | Round      | 1.75    | 1.58   | 1.53   | 1.22   | .92    |
| 158078   | JKN3CC         | 1    | 6    | DPDT on-on     | 1.19 x .76 x .73           | .44          | .59 | .44 | 10 @ 125 & 6 @ 250          | Screw lugs          | Round      | 1.75    | 1.59   | 1.29   | .99    | .75    |
| 317850   | R13-25B1-05    | 3    | 6    | DPDT on-on     | 1.14 x .59 x .62           | .38          | .38 | —   | 10 @ 125 & 6 @ 250          | Solder              | Plastic    | 3.75    | 3.35   | 2.61   | 2.34   | 2.25   |
| 318043   | R13-28B-01     | 4    | 6    | DPDT on-on     | 1.33 x .75 x .75           | .45          | .61 | .45 | 15 @ 125 & 10 @ 250         | .250" quick connect | Round      | 3.75    | 3.35   | 2.59   | 2.35   | 2.09   |
| 318051   | R13-28B-05     | 4    | 6    | DPDT on-on     | 1.33 x .75 x .75           | .45          | .61 | .45 | 15 @ 125 & 10 @ 250         | Solder              | Round      | 3.75    | 3.35   | 2.59   | 2.35   | 2.09   |
| 318060   | R13-28B-06     | 4    | 6    | DPDT on-on     | 1.33 x .75 x .75           | .45          | .61 | .45 | 15 @ 125 & 10 @ 250         | M3 Screw            | Round      | 4.59    | 4.15   | 3.19   | 2.89   | 2.75   |
| 317972   | R13-25E1-05    | 3    | 6    | DPDT on-off-on | 1.14 x .59 x .62           | .38          | .38 | —   | 10 @ 125 & 6 @ 250          | Solder              | Plastic    | 3.75    | 3.38   | 2.87   | 2.30   | 1.73   |

## Other Manufacturers — Great Deals

|       |        |   |   |            |                  |     |     |     |                   |             |       |        |        |        |        |        |
|-------|--------|---|---|------------|------------------|-----|-----|-----|-------------------|-------------|-------|--------|--------|--------|--------|--------|
| 76259 | SWM126 | 1 | 6 | DPDT on-on | 1.12 x .77 x .60 | .30 | .60 | .40 | 5 @ 125 & 3 @ 250 | Solder lugs | Round | \$1.59 | \$1.43 | \$1.22 | \$ .98 | \$ .74 |
|-------|--------|---|---|------------|------------------|-----|-----|-----|-------------------|-------------|-------|--------|--------|--------|--------|--------|

Jameco ValuePro

A JAMECO EXCLUSIVE

## Subminiature Toggle Switches

Quantity SAVE

- Mounting hole diameter: 7/32"
- Pre-tinned leads
- Metal construction

Includes: Mounting hardware

Fig. 1

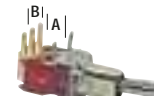


Fig. 2

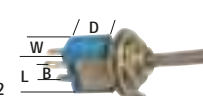


Fig. 3



| Part No. | Cross Ref. No. | Fig. | Pins | Type           | Dimensions<br>L" x W" x D" | Lead Spacing |     | Contact Rating | Lead Type      | Lever Type | Pricing |        |        |        |        |
|----------|----------------|------|------|----------------|----------------------------|--------------|-----|----------------|----------------|------------|---------|--------|--------|--------|--------|
|          |                |      |      |                |                            | A"           | B"  |                |                |            | 1       | 10     | 100    | 500    | 1000   |
| 106068   | SWP124         | 1    | 3    | SPDT on-on     | .25 x .33 x .40            | .20          | .10 | 30mA @ 5VDC    | PC right angle | Round      | \$1.99  | \$1.83 | \$1.59 | \$1.44 | \$1.32 |
| 72160    | SW1501         | 2    | 2    | SPST on-off    | .33 x .21 x .33            | .10          | —   | 1.5A @ 250VAC  | Solder lugs    | Round      | 1.09    | 1.07   | 1.04   | .99    | .84    |
| 75969    | SWM136         | 2    | 3    | SPDT on-on     | .33 x .21 x .33            | .10          | —   | 3A @ 125VAC    | Solder lugs    | Round      | 1.55    | 1.44   | 1.21   | .86    | .63    |
| 72557    | SW1502         | 2    | 3    | SPDT on-off-on | .33 x .21 x .33            | .10          | —   | 1.5A @ 250VAC  | Solder lugs    | Round      | 1.35    | 1.25   | 1.05   | .85    | .60    |
| 138907   | SW1503         | 3    | 6    | DPDT on-off-on | .36 x .37 x .33            | .17          | .10 | 3A @ 120VAC    | Solder lugs    | Round      | 1.29    | 1.05   | .85    | .64    | .48    |
| 75977    | SWM137         | 3    | 6    | DPDT on-on     | .33 x .37 x .33            | .17          | .10 | 1.5A @ 250VAC  | Solder lugs    | Round      | 1.29    | 1.05   | .85    | .65    | .55    |

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**JAMECO ValuePro**



**EXCLUSIVE**

## Miniature Toggle Switches

**Quantity SAVE**

• Mounting hole diameter: 1/4"



Fig. 1



Fig. 2

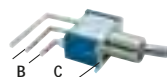


Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7

Includes: Mounting hardware

| Part No.                   | Cross Ref. No. | Fig. | Pins | Type<br>( ) Momentary | Dimensions<br>L" x W" x D" | Lead Spacing |      |     | Contact Rating<br>(A @ VAC) | Lead Type      | Lever Type | Pricing |        |        |        |        |
|----------------------------|----------------|------|------|-----------------------|----------------------------|--------------|------|-----|-----------------------------|----------------|------------|---------|--------|--------|--------|--------|
|                            |                |      |      |                       |                            | A"           | B"   | C"  |                             |                |            | 1       | 10     | 100    | 500    | 1000   |
| 76523                      | JMT113         | 1    | 2    | SPST on-off           | .52 x .32 x .38            | —            | .185 | —   | 6 @ 125 & 3 @ 250           | Solder lugs    | Round      | \$1.15  | \$1.03 | \$ .93 | \$ .75 | \$ .65 |
| 21936                      | JMT123         | 1    | 3    | SPDT on-on            | .52 x .32 x .38            | —            | .185 | —   | 5 @ 125 & 2 @ 250           | Solder lugs    | Round      | 1.15    | 1.03   | .93    | .75    | .65    |
| 21910                      | JMT121         | 1    | 3    | SPDT on-off-on        | .52 x .32 x .38            | —            | .185 | —   | 5 @ 125 & 2 @ 250           | Solder lugs    | Round      | 1.35    | 1.25   | 1.09   | .95    | .71    |
| 22833                      | LFH123         | 2    | 3    | SPDT on-on            | .52 x .28 x .36            | —            | .185 | —   | 5 @ 125 & 2 @ 250           | Solder lugs    | Flat       | 1.15    | 1.05   | .95    | .85    | .75    |
| 75854                      | SWM132         | 1    | 3    | SPDT on-on            | .52 x .32 x .38            | —            | .185 | —   | 6 @ 125 & 3 @ 250           | Solder lugs    | Round      | 1.29    | 1.16   | 1.04   | .94    | .69    |
| 75889                      | SWM129         | 1    | 3    | SPDT (on)-off-(on)    | .52 x .32 x .38            | —            | .185 | —   | 6 @ 125 & 3 @ 250           | Solder lugs    | Round      | 1.99    | 1.85   | 1.55   | 1.09   | .95    |
| 26331                      | MPC123         | 1    | 3    | SPDT on-on            | .52 x .32 x .37            | —            | .185 | —   | 6 @ 125 & 3 @ 250           | PC straight    | Round      | 1.39    | 1.25   | 1.12   | .95    | .78    |
| 26315                      | MPC121         | 1    | 3    | SPDT on-off-on        | .52 x .32 x .37            | —            | .185 | —   | 5 @ 125 & 2 @ 250           | PC straight    | Round      | 1.29    | 1.15   | 1.05   | .95    | .72    |
| 71597                      | SWM148         | 3    | 3    | SPDT on-on            | .52 x .32 x .38            | —            | .185 | .20 | 5 @ 125 & 2 @ 250           | PC right angle | Round      | 1.19    | 1.09   | .91    | .73    | .55    |
| 75871                      | SWM145         | 4    | 3    | SPDT on-on            | .52 x .32 x .38            | —            | .185 | .20 | 6 @ 125 & 3 @ 250           | PC right angle | Round      | 1.49    | 1.35   | 1.09   | .86    | .79    |
| 22841                      | LFH221         | 6    | 6    | DPDT on-off-on        | .52 x .52 x .38            | .20          | .185 | —   | 3 @ 125 & 1 @ 250           | Solder lugs    | Flat       | 1.45    | 1.35   | 1.19   | 1.09   | .95    |
| 21979                      | JMT223         | 5    | 6    | DPDT on-on            | .52 x .52 x .38            | .20          | .185 | —   | 5 @ 125 & 2 @ 250           | Solder lugs    | Round      | 1.49    | 1.29   | 1.15   | .99    | .59    |
| 22859                      | LFH223         | 6    | 6    | DPDT on-on            | .52 x .52 x .38            | .20          | .185 | —   | 5 @ 125 & 2 @ 250           | Solder lugs    | Flat       | 1.29    | 1.19   | 1.05   | .95    | .71    |
| 75900                      | SWM133         | 5    | 6    | DPDT on-on            | .52 x .52 x .38            | .20          | .185 | —   | 6 @ 125 & 3 @ 250           | Solder lugs    | Round      | 1.49    | 1.34   | 1.14   | .91    | .68    |
| 21952                      | JMT221         | 5    | 6    | DPDT on-off-on        | .52 x .52 x .38            | .20          | .185 | —   | 6 @ 125 & 3 @ 250           | Solder lugs    | Round      | 1.29    | 1.16   | .99    | .79    | .59    |
| 75951                      | SWM130         | 5    | 6    | DPDT (on)-off-(on)    | .52 x .52 x .38            | .20          | .185 | —   | 6 @ 125 & 3 @ 250           | Solder lugs    | Round      | 1.49    | 1.35   | 1.25   | .99    | .89    |
| 26367                      | MPC223         | 5    | 6    | DPDT on-on            | .52 x .52 x .38            | .20          | .185 | —   | 5 @ 125 & 2 @ 250           | PC straight    | Round      | 1.49    | 1.35   | 1.25   | .99    | .89    |
| 26358                      | MPC221         | 5    | 6    | DPDT on-off-on        | .52 x .52 x .38            | .20          | .185 | —   | 5 @ 125 & 2 @ 250           | PC straight    | Round      | 1.29    | 1.16   | 1.04   | .89    | .75    |
| <b>Other Manufacturers</b> |                |      |      |                       |                            |              |      |     |                             |                |            |         |        |        |        |        |
| 105814                     | SWA208         | 5    | 6    | DPDT on-(on)          | .52 x .52 x .38            | .20          | .185 | —   | 5 @ 125 & 2 @ 250           | Solder lugs    | Round      | \$1.59  | \$1.45 | \$1.29 | \$1.03 | \$ .77 |
| 202964                     | W124           | 7    | 6    | DPDT on-off-(on)      | .50 x .50 x .46            | .15          | .15  | .20 | 6 @ 125 & 3 @ 250           | PC right angle | Round      | 1.59    | .79    | .68    | .54    | .41    |



## Toggle Switches

### E Series Sealed Miniature

- Contact rating: 7.5A @ 125VAC or 28VDC; 3A @ 250VAC
- UL 94V-0 Nylon case and bushing
- Sealed against solder and cleaning process contaminants
- Operating temp.: -30°C to +85°C
- Insulation resistance: 10,000MΩ min.



E Series

### GT Series Sealed Ultraminiature

- Contact rating: 0.4VA max. @ 20VAC or DC max.
- Sealed against solder and cleaning process contaminants
- Insulation resistance: 10,000MΩ min.
- Operating temp.: -30°C to +85°C
- Ultraminiature size, smallest footprint available



GT Series

### T Series Subminiature

- Operating temp.: -30°C to +85°C
- Insulation resistance: 10,000MΩ min.
- Contact rating: 0.4 VA max. @ 20VAC/VDC max; 3A @ 120VAC or 28VDC
- Compact size, small footprint



T Series

### 7000 Series Miniature

- Epoxy sealed terminals prevent contamination
- Insulation resistance: 10,000MΩ min.
- Contact rating: 0.4VA max. @ 20VAC/VDC max; 5A @ 120VAC or 28VDC; 2A @ 250VAC
- Operating temp.: -30°C to +85°C



7000 Series

### 9000 Series Power

- Contact rating: 6A @ 120VAC/28VDC; 3A @ 250VAC or 10A @ 125VAC/ 28VDC; 5A @ 250VAC
- Insulation resistance: 10,000MΩ min.
- Operating temp.: -30°C to +85°C

### MIL-S-83731 Series Military/Aerospace/Hi-Rel

- Contact rating: 0.4VA max. @ 28VAC/DC max.
- Operating temp.: -25°C to +71°C

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## Alcoswitch

## Toggle Switches

### Gemini A Series Miniature

- Insulation resistance: 1000MΩ @ 500VDC
- Dielectric strength: 1000 volts RMS @ sea level
- Contact rating: gold: 0.4VA @ 20VAC/DC; silver: 2A @ 250VAC, 5A @ 125VAC
- Operating temp.: -20°C to 85°C



A Series

### AE Series Washable

- Dielectric strength: 1000 volts RMS @ sea level
- Operating temp.: -20°C to +85°C
- Contact rating: gold: 0.4VA @ 20VAC/DC; silver: 2A @ 250VAC, 5A @ 125VAC
- Insulation resistance: 1000MΩ @ 500VDC



MT Series

### MT Series

- Dielectric strength: 1500VAC
- Operating temp.: -20°C to +80°C
- Contact rating: gold: 6A @ 125VAC, 3A @ 250VAC
- Insulation resistance: 1000MΩ @ 500VDC min. for 1 minute



7320 Series

### TT Series

- Insulation resistance: 1000MΩ min. @ 500VDC min.
- Dielectric strength: 1000 volts RMS @ sea level
- Contact rating: 0.4VA @ 20VDC or peak AC or 3A @ 125VAC
- Operating temp.: -30°C to +85°C

### 7320/7360/7402 Series Power

- Operating temp.: 0°C to 55°C
- Screw terminals
- Contact rating: 7320 series: 16A @ 125VAC, 8A @ 250VAC; 7360 series: 20A @ 125VAC, 10A @ 250VAC; 7402 series: 20A @ 125/250VAC

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## Toggle Switches

### Heavy-Duty Toggle Switches

| Part No. | Product No. | Fig. | Type<br>( ) Momentary | Contact Rating<br>(A @ VAC) | Lead Type          | Mounting<br>Hole | Lever Type  | Pricing |        |        |
|----------|-------------|------|-----------------------|-----------------------------|--------------------|------------------|-------------|---------|--------|--------|
|          |             |      |                       |                             |                    |                  |             | 1       | 10     | 100    |
| 620787   | 35-078      | 1    | SPST on-off           | 15 @ 125                    | Solder             | 0.500"           | Bat (metal) | \$3.19  | \$2.99 | \$2.90 |
| 620963   | 35-130      | 2    | SPDT on-on            | 20 @ 125                    | Screw              | 0.500"           | Bat (metal) | 3.25    | 3.04   | 2.84   |
| 621018   | 35-139      | 3    | 3PST on-off           | 17 @ 125                    | Screw              | 0.500"           | Bat (metal) | 10.65   | 9.97   | 9.31   |
| 621026   | 35-140      | 3    | 3PDT on-off-on        | 17 @ 125                    | Screw              | 0.500"           | Bat (metal) | 12.55   | 11.76  | 10.99  |
| 621034   | 35-141      | 3    | 3PDT on-on            | 17 @ 125                    | Screw              | 0.500"           | Bat (metal) | 12.55   | 11.76  | 10.99  |
| 621122   | 35-149      | 1    | DPDT on-off-on        | 20 @ 125                    | Solder             | 0.500"           | Bat (metal) | 5.75    | 5.23   | 4.73   |
| 621131   | 35-150      | 2    | DPDT (on)-off-(on)    | 20 @ 125                    | Screw              | 0.500"           | Bat (metal) | 6.25    | 5.85   | 5.47   |
| 621181   | 35-155      | 2    | SPDT (on)-off-(on)    | 20 @ 125                    | Screw              | 0.500"           | Bat (metal) | 4.29    | 4.03   | 3.78   |
| 621261   | 35-185      | 4    | DPST on-off           | 20 @ 125                    | 0.250" quick conn. | 0.500"           | Bat (metal) | 5.15    | 4.80   | 4.47   |
| 621499   | 35-3005     | 4    | SPST on-off           | 20 @ 125                    | 0.250" quick conn. | 0.500"           | Bat (brass) | 2.65    | 2.47   | 2.30   |
| 621536   | 35-3015     | 4    | SPDT on-off-on        | 20 @ 125                    | 0.250" quick conn. | 0.500"           | Bat (brass) | 3.29    | 3.08   | 2.88   |
| 621544   | 35-3020     | 4    | DPDT on-on            | 20 @ 125                    | 0.250" quick conn. | 0.500"           | Bat (brass) | 4.45    | 4.16   | 4.08   |
| 621552   | 35-3025     | 4    | DPDT on-off-on        | 20 @ 125                    | 0.250" quick conn. | 0.500"           | Bat (brass) | 4.45    | 4.17   | 3.90   |
| 621587   | 35-3045     | 4    | SPST on-off           | 20 @ 125                    | 0.250" quick conn. | 0.500"           | Bat (brass) | 4.75    | 4.45   | 4.16   |
| 621608   | 35-3055     | 4    | SPST off-(on)         | 20 @ 125                    | 0.250" quick conn. | 0.500"           | Bat (brass) | 4.55    | 4.25   | 3.97   |
| 621616   | 35-3060     | 2    | DPST on-off           | 20 @ 125                    | Screw              | 0.500"           | Bat (brass) | 4.45    | 4.16   | 3.89   |
| 621641   | 35-3075     | 5    | DPST on-off           | 20 @ 125                    | Screw              | 0.500"           | Bat (brass) | 9.59    | 8.90   | 8.28   |

### Medium-Duty Toggle Switches

| Part No. | Product No. | Fig. | Type<br>( ) Momentary | Contact Rating<br>(A @ VAC) | Lead Type          | Mounting<br>Hole | Lever Type       | Pricing |        |        |
|----------|-------------|------|-----------------------|-----------------------------|--------------------|------------------|------------------|---------|--------|--------|
|          |             |      |                       |                             |                    |                  |                  | 1       | 10     | 100    |
| 620816   | 35-090      | 6    | SPST on-off           | 16 @ 125                    | 0.250" quick conn. | 0.500"           | Paddle (red)     | \$5.29  | \$4.96 | \$4.64 |
| 620832   | 35-094      | 6    | SPST on-off           | 16 @ 125                    | 0.250" quick conn. | 0.500"           | Paddle (green)   | 5.29    | 4.96   | 4.64   |
| 620921   | 35-118      | 7    | DPST on-off           | 6 @ 125                     | 0.250" quick conn. | 0.500"           | Bat (metal)      | 4.45    | 4.17   | 3.90   |
| 620971   | 35-132      | 8    | DPDT on-on            | 3 @ 125                     | Solder             | 0.500"           | Bat (metal)      | 1.95    | 1.81   | 1.68   |
| 621190   | 35-160      | 9    | SPST on-off           | 6 @ 125                     | Solder             | 0.500"           | Bat (metal)      | 3.55    | 3.31   | 3.08   |
| 621211   | 35-170      | 10   | SPST on-off           | 6 @ 125                     | Screw              | 0.500"           | Ball (metal)     | 7.85    | 7.36   | 6.88   |
| 621229   | 35-178      | 11   | SPST on-off           | 20 @ 125                    | 0.250" quick conn. | 0.500"           | Paddle (plastic) | 3.35    | 3.21   | 3.08   |
| 617721   | 35-854      | 12   | SPST on-off           | 6 @ 125                     | Lead wires         | 0.500"           | Bat (plastic)    | 3.49    | 3.22   | 2.97   |
| 620841   | 35-1076     | 13   | SPST off-(on)         | 6 @ 125                     | Screw              | 0.500"           | Bat (metal)      | 6.25    | 5.85   | 5.47   |
| 621579   | 35-3035     | 14   | SPST on-off           | 6 @ 125                     | Screw              | 0.500"           | Bat (brass)      | 2.95    | 2.75   | 2.56   |
| 621595   | 35-3050     | 15   | SPST on-off           | 10 @ 125                    | Lead wires         | 0.500"           | Paddle (brass)   | 3.25    | 3.12   | 3.01   |
| 621683   | 35-3127     | 16   | DPDT (on)-off-(on)    | 15 @ 125                    | 0.250" quick conn. | 0.500"           | Bat (metal)      | 10.09   | 9.39   | 8.76   |
| 621763   | 35-3160     | 17   | SPST on-off           | 20 @ 125                    | Screw              | 0.500"           | Paddle (nylon)   | 3.45    | 3.21   | 2.99   |

### Miniature Toggle Switches

| Part No. | Product No. | Fig. | Type<br>( ) Momentary | Contact Rating<br>(A @ VAC) | Lead Type | Mounting<br>Hole | Lever Type               | Pricing |        |        |
|----------|-------------|------|-----------------------|-----------------------------|-----------|------------------|--------------------------|---------|--------|--------|
|          |             |      |                       |                             |           |                  |                          | 1       | 10     | 100    |
| 620517   | 35-003      | 18   | SPDT on-(on)          | 5 @ 125                     | Solder    | 0.250"           | Bat (brass chrome plate) | \$2.75  | \$2.57 | \$2.40 |
| 620525   | 35-004      | 18   | SPDT on-on            | 5 @ 125                     | Solder    | 0.250"           | Bat (brass chrome plate) | 2.35    | 2.20   | 2.06   |
| 620533   | 35-005      | 18   | SPDT on-off-on        | 5 @ 125                     | Solder    | 0.250"           | Bat (brass chrome plate) | 2.75    | 2.57   | 2.40   |
| 620550   | 35-007      | 18   | SPDT on-off-(on)      | 5 @ 125                     | Solder    | 0.250"           | Bat (brass chrome plate) | 2.75    | 2.57   | 2.40   |
| 620568   | 35-008      | 18   | SPDT (on)-off-(on)    | 5 @ 125                     | Solder    | 0.250"           | Bat (brass chrome plate) | 2.65    | 2.47   | 2.30   |
| 620576   | 35-009      | 19   | DPDT on-on-on         | 5 @ 125                     | Solder    | 0.250"           | Bat (brass chrome plate) | 4.25    | 3.98   | 3.72   |

See Our Complete GC Electronics Toggle Switch Offering at [www.Jameco.com/Prod/GCToggle](http://www.Jameco.com/Prod/GCToggle)



### OMRON B3F Series Miniature Tactile Key Switch

- Low profile and easy mounting
- Applications: audio, office & communications equipment, measuring instruments, TVs, VCRs, etc.
- Lead spacing: A = 0.18"; B = 0.26"
- Operating force: high-force 260g
- Extended mechanical/electrical service life
- Flux-tight base structure allows automatic soldering of the key switch onto a PC board
- Dimensions: 4.3 mm x 6.5 mm



| Part No. | Type     | 1      | 25     | 50     | 100    |
|----------|----------|--------|--------|--------|--------|
| 162886   | B3F-1000 | \$0.45 | \$0.40 | \$0.36 | \$0.33 |

### GC Electronics Tactile Switches

- Contact rating: 50mA @ 12VDC
- Contact form: SPST (on)-off
- PC terminal
- Actuator: P/N 621077 – low profile gray P/N 621085 – low profile black



| Part No. | Product No. | Body Size | 1      | 10     | 100    |
|----------|-------------|-----------|--------|--------|--------|
| 621077   | 35-1451     | 12mm      | \$0.99 | \$0.92 | \$0.86 |
| 621085   | 35-1452     | 6mm       | \$0.89 | \$0.82 | \$0.76 |

To Find Additional GC Tactile Switches, visit [www.Jameco.com/Prod/GCTactile](http://www.Jameco.com/Prod/GCTactile)

### Alcoswitch Tactile Switches

#### FSM Series

- Operating temp.: -40°C to +85°C
- Initial contact resistance: 100mΩ max.
- Insulation resistance: 100MΩ min. @ 500VDC
- Dielectric strength: 500VAC for 1 minute

These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.



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Have you found a product at a lower print-advertised price?  
We'll beat that price by 10%, right down to our cost!

◆ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



**JAMECO ValuePro**

## Tactile Switches

**EXCLUSIVE**

**Quantity SAVE**



Fig. 1

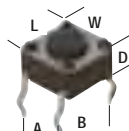


Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9

- Bounce time: 10 msec.
- SPST momentary ON
- Contact resistance: 100mΩ
- Lead type: PC

| Part No. | Cross Ref. No. | Fig. | Pins | Dimensions (in.) |     |     |     | Lead Spacing |     | Contact Rating<br>(mA @ VDC) | Button Color | Pricing |        |        |        |
|----------|----------------|------|------|------------------|-----|-----|-----|--------------|-----|------------------------------|--------------|---------|--------|--------|--------|
|          |                |      |      | L                | W   | D   | C   | A"           | B"  |                              |              | 1       | 10     | 100    | 250    |
| 122973   | DTS1212        | 1    | 4    | .47              | .47 | .18 | —   | .20          | .50 | 20 @ 15                      | Black        | \$ .26  | \$ .23 | \$ .19 | \$ .17 |
| 119010   | KTIBICM        | 2    | 8    | .24              | .24 | .15 | .30 | .17          | .25 | 20 @ 15                      | Black        | .27     | .24    | .176   | .132   |
| 149948   | KT11P4CM       | 3    | 4    | .24              | .24 | .15 | .13 | .17          | .25 | 20 @ 15                      | Black        | .23     | .234   | .184   | .138   |
| 199728   | EVQ11A04M      | 6    | 2    | .24              | .24 | .14 | .30 | .20          | —   | 20 @ 15                      | White        | .30     | .221   | .196   | .187   |
| 137190   | PBS103         | 1    | 4    | .47              | .47 | .17 | —   | .20          | .50 | 50 @ 12                      | Black        | .39     | .35    | .32    | .19    |
| 153251   | SDT620K        | 2    | 4    | .24              | .24 | .15 | .06 | .17          | .25 | 50 @ 12                      | Black        | .29     | .25    | .20    | .18    |
| 155249   | KRS-3550-BK    | 4    | 2    | .24              | .14 | .15 | —   | .27          | —   | 50 @ 12                      | Black        | .22     | .20    | .16    | .15    |
| 155380   | KRS-1273B      | 5    | 4    | .47              | .47 | .14 | .14 | .17          | .53 | 50 @ 12                      | Brown        | .39     | .35    | .31    | .26    |

### Tactile Switch Caps

10 piece minimum

| Part No. | Cross Ref. No. | Fig. | Description | Size (in.)               | Material | For Use With | 10     | 100    | 250    |
|----------|----------------|------|-------------|--------------------------|----------|--------------|--------|--------|--------|
| 155389   | KRS-CAP-A      | 8    | Square      | .47" L x .47" W x .16" H | Plastic  | P/N 155380   | \$ .15 | \$ .11 | \$ .10 |
| 155409   | KRS-CAP-B      | 9    | Round       | .50" Dia. x .25" H       | Plastic  | P/N 155380   | .15    | .13    | .11    |

### Other Manufacturers — Great Deals

\* 10 piece minimum

| Part No. | Cross Ref. No. * | Fig. | Pins | Dimensions (in.) |     |     |     | Lead Spacing |     | Contact Rating<br>(mA @ VDC) | Button Color | Pricing |         |         |        |
|----------|------------------|------|------|------------------|-----|-----|-----|--------------|-----|------------------------------|--------------|---------|---------|---------|--------|
|          |                  |      |      | L                | W   | D   | C   | A"           | B"  |                              |              | 1       | 10      | 100     | 250    |
| 199726   | EVQ11A04M        | 6    | 2    | .24              | .24 | .14 | .30 | .20          | —   | 20 @ 15                      | White        | \$ .27  | \$ .199 | \$ .176 | \$ .13 |
| 454491   | DST21N           | 1    | 4    | .47              | .47 | .14 | .03 | .19          | .47 | 50 @ 12                      | Brown        | .23     | .21     | .19     | .17    |
| 454504   | DSTM-61R         | 2    | 4    | .24              | .24 | .15 | .03 | .19          | .32 | 50 @ 12                      | Red          | .23     | .21     | .19     | .17    |
| 454512   | DSTM-61K         | 2    | 4    | .24              | .24 | .15 | .03 | .19          | .32 | 50 @ 12                      | Black        | .23     | .21     | .19     | .17    |
| 202956   | KSM06330         | 7    | 2    | .24              | .24 | .15 | .38 | .11          | .18 | 50 @ 24                      | Red          | *       | .102    | .092    | .083   |

\* Manufacturer may vary • See switch caps above 1 454504/454512: SMD



## Specialty Switches



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6

### Pull Chain Switches • Current rating: 6A @ 20VAC/VDC; 3A @ 120VAC

| Part No. | Product No. | Fig. | Contact Form             | Actuator          | Terminal Type | 1      | 10     | 50     |
|----------|-------------|------|--------------------------|-------------------|---------------|--------|--------|--------|
| 617764   | 35-864      | 1    | SPST on-off              | 3 1/2" pull chain | 6" wires      | \$2.75 | \$2.52 | \$2.31 |
| 617772   | 35-865      | 2    | R3P off - (1)on - (2) on | 3 3/4" pull chain | push-in       | 4.59   | 4.24   | 3.89   |
| 617781   | 35-867      | 2    | SP3T off-on-on-on        | 3 3/4" pull chain | push-in       | 5.05   | 4.45   | 3.96   |

### Magnetic Proximity • Current rating: 0.5A @ 20VAC/VDC; 0.08A @ 120VAC

| Part No. | Product No. | Fig. | Contact Form          | Actuator    | Terminal Type                        | 1      | 10     | 50     |
|----------|-------------|------|-----------------------|-------------|--------------------------------------|--------|--------|--------|
| 617502   | 35-750      | 3    | SPST NO w/o magnet    | Need magnet | Screw term., 1/4" gap, surface mount | \$3.35 | \$3.16 | \$2.98 |
| 617529   | 35-752      | 4    | SPDT NO/NC            | Use magnet  | Leaded SD                            | 4.15   | 3.97   | 3.78   |
| 617545   | 35-756      | 3    | SPDT NO/NC w/o magnet | Need magnet | Screw term., 1/4" gap, surface mount | 7.05   | 6.56   | 6.10   |

### Knife Switches • Current rating: 0.5A @ 6VDC • Mounting hole: 3.4mm

| Part No. | Product No. | Fig. | Contact Form   | Actuator       | Terminal Type  | 1      | 10     | 50     |
|----------|-------------|------|----------------|----------------|----------------|--------|--------|--------|
| 617490   | 35-730      | 5    | DPDT on-off-on | Plastic handle | Screw terminal | \$4.09 | \$3.99 | \$3.91 |

### Proximity Magnets • Current rating: 0.3A @ 30VAC/VDC

| Part No. | Product No. | Fig. | Contact Form | Terminal Type   | 1      | 10     | 100    |
|----------|-------------|------|--------------|---|--------|--------|--------|
| 617511   | 35-751      | —    | SPST NO      | Screw terminal, 1/4" gap, surface mount                 | \$9.69 | \$8.87 | \$8.11 |
| 617537   | 35-754      | 6    | SPST NO      | Side wire leads, 1" gap, subminiature surface mount     | 8.39   | 7.67   | 7.01   |
| 617553   | 35-761      | —    | SPST NO      | Wire leads, 1/4" gap, recessed magnet, panel mount 3/4" | 9.25   | 8.48   | 7.78   |
| 617561   | 35-762      | —    | SPST NO      | Wire leads, 1/4" gap, recessed magnet, panel mount 3/8" | 6.49   | 5.91   | 5.40   |

To Find Mercury Tilt Switches, visit our website at [www.Jameco.com/Prod/GCSpecialty](http://www.Jameco.com/Prod/GCSpecialty)

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RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

Color Code Legend  
 New Sale Lower\$ QtySave

## Magnetic Reed Switches

- NO (normally open)
- Contact form: SPST



171871:

• 500mA @ 100VDC • Size: 0.53"L x 0.1"Dia.

164081: 1A @ 250VAC; 1A @ 50VDC

• Size: 1.43"L x 0.2"Dia.

**Quantity SAVE**

| Part No. | Cross Ref. No. | 1      | 10     | 100    | 1000   |
|----------|----------------|--------|--------|--------|--------|
| 171871   | MKA14103       | \$ .79 | \$ .64 | \$ .46 | \$ .41 |
| 164081   | MRS1           | .62    | .56    | .448   | .336   |



## Navigation Switches

### TPA Series Tact for SMT

- One touch, 5 way switching
- Distinctive tactile feel for scanning and select functions
- Contact resistance: ≤200mΩ initial
- Insulation resistance: 1000MΩ @ 100VDC
- Dielectric strength: 250VDC



### TPC Series Tri-Direction Scan

- One touch, 3 way switching
- Superior tactile feel
- Contact resistance: ≤300mA
- Rotation of actuator closes two individual contacts
- Insulation resistance: 1000MΩ @ 100VDC
- Dielectric strength: 250VDC
- Operating temp.: -40°C to +125°C



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See Our Complete C&K Navigation Switch Offering at [www.Jameco.com/Prod/CKNavigation](http://www.Jameco.com/Prod/CKNavigation)

## Switch Assortment Kit

Includes:

- 20-drawer component cabinet (319600), 20 clear plastic drawers (319601), 20 clear dividers (319611), pg 209 and 30 adhesive labels for drawers to identify parts in kit
- 10 ea. miniature toggle switches (76523, 21936, 21910, 26331, 26315, 21979, 21952, 26367, 26358), pg 187
- 10 ea. slide switches (109171), see web
- 10 ea. pushbutton switches (26623, 26649), pg 176
- 10 ea. DIP switches (38818, 38843), pg 191
- 10 ea. tactile switches (153251), pg 189

**SAVE \$50**



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# Rotary & Rotary DIP Switches



RoHS Compliant Product  
RoHS Also Available

Details on Page 1

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |

JAMECO ValuePro

## Rotary Switches

Quantity SAVE

- Contact rating: 30VDC @ 0.3A
- Insulation resistance: 10MΩ min.
- Contact resistance: 30mΩ
- Lug size: 0.07" • Layers: 1
- Mounting hole diameter: 3/8"
- Material: solid brass bushings, slotted aluminum shafts, plated frame, phenolic contact wafer (except for P/N 101565 – plastic casing)
- Make before break • Solder lugs • Panel mount

Includes: Washer and nut

Blue Part No. = Limited Quantity Available

| Part No. | Cross Ref. No. | Poles | Position | Shaft Size (L" x Dia.) | 1      | 10     | 50     |
|----------|----------------|-------|----------|------------------------|--------|--------|--------|
| 101531   | RS0261         | 1     | 12       | 0.46 x 0.25            | \$1.25 | \$1.04 | \$0.96 |
| 101574   | RS022          | 2     | 6        | 0.46 x 0.25            | 1.35   | 1.15   | .86    |
| 101565   | RS023          | 3     | 4        | 1.16 x 0.25            | 1.95   | 1.59   | 1.25   |
| 101557   | RS024          | 4     | 3        | 0.46 x 0.25            | 1.21   | 1.02   | .77    |



101574



## Rotary Switches

### Solder Eyelet Style

- Current: 0.3A @ 125VAC
- Actuator: 1/4" metal shaft
- Mounting hole dia.: 0.375"



| Part No. | Product No. | Poles | Position | Mounting Style | 1      | 10     | 100    |
|----------|-------------|-------|----------|----------------|--------|--------|--------|
| 622336   | 35-375      | 2     | 6        | Shorting       | \$3.85 | \$3.55 | \$3.28 |
| 622352   | 35-376      | 1     | 12       | Shorting       | 2.89   | 2.66   | 2.48   |
| 622379   | 35-377      | 2     | 5        | Non-shorting   | 3.85   | 3.55   | 3.28   |
| 622387   | 35-378      | 3     | 3        | Non-shorting   | 3.85   | 3.55   | 3.28   |
| 622395   | 35-379      | 3     | 4        | Shorting       | 2.89   | 2.66   | 2.48   |

### 6" Lead Wire Style

- Mounting: threaded bushing • Contact form: SPST on-off

| Part No. | Product No. | Current (A@125/250VAC) | Actuator      | Mounting Hole (Dia.) | Pricing |        |        |
|----------|-------------|------------------------|---------------|----------------------|---------|--------|--------|
|          |             |                        |               |                      | 1       | 10     | 100    |
| 617730   | 35-855      | 6/3                    | Brass knob    | 0.375"               | \$3.05  | \$2.49 | \$2.02 |
| 617748   | 35-856      | 6/2                    | Black plastic | 0.375"               | 2.95    | 2.47   | 2.01   |

## Alcoswitch

### MRC Series

- Contact rating: 500mA @ 125VAC or 28VDC resistive
- Insulation resistance: 100MΩ min. • Operating temp.: -20°C to +80°C
- Dielectric strength: 1000V<sub>RMS</sub> @ sea level

### MRJ Series

- Contact rating: 0.4VA max. @ 20VDC or peak AC
- Insulation resistance: 10,000MΩ min. • Op. temp.: -20°C to +70°C
- Dielectric strength: 1000 V<sub>RMS</sub> @ sea level

## Rotary Switches



MRC Series

### 6000 Series

- Current/voltage rating: Signal application only
- Insulation resistance: 1000MΩ • Op. temp.: -18°C to +88°C
- Dielectric breakdown voltage: 500VDC min.
- Compact design, small diameter, low profile switches are ideal for pc board mounting



6000 Series

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See Our Alcoswitch Rotary Switch Offering at [www.Jameco.com/Prod/AlcoRotary](http://www.Jameco.com/Prod/AlcoRotary)



## CD Series 8mm DIP Coded Rotary Switches

- Contact rating: 0.4W max. @ 20VAC or VDC max.
- Insulation resistance: 100MΩ min. @ 250VAC min.
- Cover and base, knob: glass filled nylon, (UL94V-0)
- Movable contacts and stationary contacts: copper alloy with gold plate over nickel plate
- Contact resistance: 50mΩ max. initial
- Dielectric strength: 250V<sub>RMS</sub> min.
- Actuator: LCP (UL94V-0), internal o-ring seal standard
- Terminals: copper alloy with tin-lead alloy over nickel plate



581394



582426

| Part No. | Product No. | Function                        | Actuator                   | Termination               | Mech/Electrical Life | 1      | 10     | 100    | 1000   |
|----------|-------------|---------------------------------|----------------------------|---------------------------|----------------------|--------|--------|--------|--------|
| 581415   | CD10RK1CK   | BCD, 10-position                | Knob                       | PC thru-hole              | 20,000 actuations    | \$4.49 | \$4.31 | \$3.91 | \$3.56 |
| 581440   | CD10RL1AK   | BCD, 10-position                | Extended, screwdriver slot | Right angle, PC thru-hole | 20,000 actuations    | 4.89   | 4.75   | 4.15   | 3.65   |
| 581491   | CD10RL1CK   | BCD, 10-position                | Extended, screwdriver slot | PC thru-hole              | 20,000 actuations    | 3.89   | 3.70   | 3.21   | 3.06   |
| 581474   | CD10RMOSK   | BCD, 10-position                | Flush, screwdriver slot    | Surface mount             | 20,000 actuations    | 3.79   | 3.63   | 3.14   | 2.99   |
| 581394   | CD16CMOSK   | Hexadecimal compliment, 16-pos. | Flush, screwdriver slot    | Surface mount             | 20,000 actuations    | 5.09   | 4.95   | 4.80   | 4.72   |
| 581335   | CD16RK1AK   | Hexadecimal, 16-pos.            | Knob                       | Right angle, PC thru-hole | 20,000 actuations    | 5.35   | 5.27   | 4.46   | 4.35   |
| 581301   | CD16RK1CK   | Hexadecimal, 16-pos.            | Knob                       | PC thru-hole              | 20,000 actuations    | 6.05   | 5.70   | 5.55   | 5.45   |
| 582418   | CD16RM0AK   | Hexadecimal, 16-pos.            | Flush, screwdriver slot    | Right angle, PC thru-hole | 20,000 actuations    | 4.29   | 4.19   | 3.61   | 3.45   |
| 582434   | CD16RM0CK   | Hexadecimal, 16-pos.            | Flush, screwdriver slot    | PC thru-hole              | 20,000 actuations    | 4.55   | 4.19   | 3.69   | 3.15   |
| 582426   | CD16RMOSK   | Hexadecimal, 16-pos.            | Flush, screwdriver slot    | Surface mount             | 20,000 actuations    | 4.25   | 4.00   | 3.48   | 3.30   |



## CRD Series 10mm DIP Coded Rotary Switches

- Contact rating: 0.4W, 20VDC max.
- Electrical life: 20,000 steps min. @ 5VDC, 10mA
- Insulation resistance: 1000MΩ min. @ 100VDC
- Contact resistance: 100mΩ max. initial @ 2VDC, 10mA
- Cover: (PTH) PBT red; (SMT) PPA red (UL94V-0)
- Actuator: 4/6 nylon PA-6T (UL94V-0)
- Terminal: brass with tin-lead plate
- Mechanical life: 30,000 steps min.
- Dielectric strength: 300VAC for 1 minute
- Housing: (PTH) PBT green, (SMT) PPA red (UL94V-0)
- Contact: beryllium copper with gold plating
- Actuator: flush, screwdriver slot



| Part No. | Product No. | Function                   | Termination               | 1      | 10     | 100    | 1000   |
|----------|-------------|----------------------------|---------------------------|--------|--------|--------|--------|
| 581431   | CRD10RM0AK  | BCD, 10-pos.               | Right angle, PC thru-hole | \$4.95 | \$4.54 | \$3.89 | \$2.74 |
| 581423   | CRD10RMOSK  | BCD, 10-pos.               | Surface mount             | 4.75   | 4.32   | 3.71   | 2.61   |
| 581360   | CRD16CMOSK  | Hexadecimal comp., 16-pos. | Surface mount             | 5.19   | 4.76   | 4.08   | 2.87   |
| 581343   | CRD16RM0AK  | Hexadecimal, 16-pos.       | Right angle, PC thru-hole | 5.49   | 5.01   | 4.29   | 3.01   |
| 581351   | CRD16RM0CK  | Hexadecimal, 16-pos.       | PC thru-hole              | 4.65   | 4.22   | 3.62   | 2.54   |

See Our C&K RTE Series Switch Offering at [www.Jameco.com/Prod/CKDIP](http://www.Jameco.com/Prod/CKDIP)

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## Rotary Switches

### A Series 1-4 Pole

- Multi-pole and multi-position
- Positive detent
- Contact rating: -2.5A @ 125VAC; 350mA @ 125VDC
- Insulation resistance: 1000MΩ min.
- Dielectric strength: 1000V<sub>RMS</sub> @ sea level



### M Series 1/2 Inch

- Stainless steel actuator
- Multi-pole and multi-position
- Contact rating: 250mA @ 125VAC/28VDC
- Insulation resistance: 1000MΩ min.
- Operating temp.: -30°C to +85°C
- Dielectric strength: 600V<sub>RMS</sub> @ sea level



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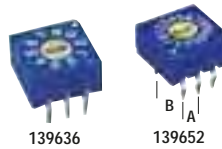
♣ RoHS compliant product • This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



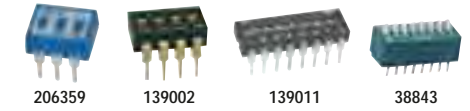
## Rotary DIP Switches

- Gold plated contacts to ensure reliable, low resistance connection
- Fully sealed construction • Terminals: PC pin leads
- Life: 10,000 cycles min. • Op. force: 500g-cm max.
- Max. switching load rating: 25mA @ 24VDC • Lead spacing: A = 0.1"; B = 0.3"
- Material: 94V-0 grade, UL approved fire retardant plastic

| Part No. | Cross Ref. No.  | Position | Adjust | Code Type | W" x D" x H"    | 1      | 10     | 50     | 100    |
|----------|-----------------|----------|--------|-----------|-----------------|--------|--------|--------|--------|
| 139636   | ERD110RS(DRD10) | 10       | Top    | BCD       | .39 x .39 x .20 | \$2.59 | \$2.33 | \$2.07 | \$1.86 |
| 139652   | ERD116RS        | 16       | Top    | Hex       | .39 x .39 x .20 | 2.75   | 2.49   | 2.22   | 1.99   |



## DIP Switches



- Switch contacts: SPST
- Switches are numbered
- 50VDC @ 100mA
- Molded construction
- Standard switches have raised lever
- LP switches are flush to casing
- Pre-tinned leads

Compatible Socket Chart, see page 148 for Sockets

| Switch | Socket | Switch | Socket | Switch | Socket |
|--------|--------|--------|--------|--------|--------|
| 109059 | 112193 | 38827  | 37162  | 38798  | 38608  |
| 38820  | 51571  | 38843  | 37372  | 38801  | 39378  |
| 139003 | 51571  | 139011 | 37372  | 38834  | 37162  |
| 109057 | 112193 | 139002 | 51571  | 101856 | 38113  |
| 38818  | 51571  | 38826  | 37162  | 38797  | 38608  |
| 206359 | 51571  | 454547 | —      |        |        |



## Rotary DIP Switches

- Fully sealed construction • Rotor and switch body: plastic (UL94V-0)
- Contact and terminal material: copper alloy plated
- Make and break current rating: 30mA @ 30VDC for 10,000 cycles
- 215992: • 0.1" x 0.3" pin spacing (standard through hole)
- 645669: • 0.270" actuator type



Blue Pin No. = Limited Quantity Available

| Part No. | Product No. | Position | Adjust | Code Type | W" x D" x H"    | 1      | 10     | 50     | 100    |
|----------|-------------|----------|--------|-----------|-----------------|--------|--------|--------|--------|
| 215992   | HAB16       | 16       | Top    | Hex       | .39 x .39 x .20 | \$1.95 | \$1.75 | \$1.59 | \$1.45 |
| 645669   | HBB08       | 8        | Top    | Octal     | .38 x .39 x .23 | 2.25   | 2.05   | 1.89   | 1.69   |



## DIP Switches

**BD Series Standard Profile** • Insulation resistance: 1,000MΩ min.

- Traditional full profile DIP switch
- Contact rating: 100mA @ 50VDC
- Dielectric strength: 500V<sub>RMS</sub> @ sea level
- Operating temp.: -40°C to +85°C

**BPA Series Side Actuated** • Insulation resistance: 100VDC 100MΩ min.

- Side actuated contacts
- Contact rating: 100mA @ 50VDC
- Dielectric strength: 300VAC for 1 min.
- Operating temp.: -20°C to +85°C

**SD Series Low Profile** • Dielectric strength: 500V<sub>RMS</sub> @ sea level

- Contact rating: 100mA @ 50VDC
- Operating temp.: -20°C to +85°C
- Insulation resistance: 10MΩ or 1,000MΩ min.
- Sealed with top tape

**SDA Series Low Profile** • Insulation resistance: 1,000MΩ min. @ 100VDC

- Contact rating: 25mA @ 24VDC; 100mA @ 50VDC
- Dielectric strength: 300VAC for 1 min.
- Operating temp.: -20°C to +85°C

**TDA Series Low Profile** • Insulation resistance: 1,000MΩ min. @ 100VDC • Operating temp.: -20°C to +85°C

- Contact rating: 25mA @ 24VDC; 100mA @ 50VDC
- Dielectric strength: 300VAC for 1 min.

These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.



See Our Complete C&K DIP Switch Offering at [www.Jameco.com/Prod/CKDIP](http://www.Jameco.com/Prod/CKDIP)

## Alcoswitch

## DIP Switches

**AD Series** • Contact rating: 0.4VA @ 20VDC max.

- Insulation resistance: 1,000MΩ min. @ 100VDC
- Dielectric strength: 500VAC

**GD Series** • Contact rating: 0.4VA 25mA @ 24VDC

- Insulation resist.: 100MΩ min. @ 250VDC

**DRD Series Sealed Rotary** • Contact rating: 0.4VA max. @ 20VDC max.

- Insulation resistance: 1,000MΩ min. @ 100VDC

**7000 Series** • Dielectric withstanding voltage: 500VDC min.

- Current/voltage rating: Non-switching-1.0A max. @ 50VDC

**7100 Series SPST Rocker Style Actuator** • Dielectric withstanding voltage: 500VDC min.

- Current/voltage rating: Non-switching-1.0A max. @ 40VDC

These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.



See Our Alcoswitch DIP Switch Offering at [www.Jameco.com/Prod/AlcoDIP](http://www.Jameco.com/Prod/AlcoDIP)



## DIP Switches

- Operating temp.: -40°C to +85°C
- Insulation resistance: 1000MΩ @ 100VDC min.

**76 & 78 Series SPDT Through Hole** • Dielectric strength: 500V<sub>RMS</sub>

- Carrying current rating: 4A or 5A
- Spring and ball contact
- Raised and recessed rocker and toggle actuated styles

**90HB Series SPST, Low Profile SMT** • Dielectric strength: 500V<sub>RMS</sub>

- Carrying current rating: 3A
- Reliable spring and ball contact

These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.



See Our Complete Grayhill DIP Switch Offering at [www.Jameco.com/Prod/GrayhillDIP](http://www.Jameco.com/Prod/GrayhillDIP)



## Tri-State DIP Switch

- Switch contacts: bused, tri-state
- 8 positions
- Pre-tinned leads
- Labeled tri-state positions (+, 0, -)
- Contact rating: 24VDC @ 25mA
- Two isolated buses
- Compatible socket, use P/N 37372, pg 148

| Part No. | Cross Ref. No. | 1      | 10     | 50     | 100    |
|----------|----------------|--------|--------|--------|--------|
| 138992   | ETA108E        | \$1.95 | \$1.75 | \$1.55 | \$1.35 |



## DIP Switches

- Standard profile
- 2A @ 5VDC or 25mA @ 25VDC

| Part No. | Product No. | Pos. | Length     | 1      | 10     | 50     |
|----------|-------------|------|------------|--------|--------|--------|
| 617908   | 35-964      | 4    | 0.48" ..   | \$1.75 | \$1.59 | \$1.44 |
| 617916   | 35-968      | 8    | 0.88" .... | 2.35   | 2.16   | 1.94   |
| 617924   | 35-970      | 10   | 1.08" .... | 2.75   | 2.49   | 2.24   |

## Alcoswitch Vertical SIP Switches

### SSV Series

- Contact rating: 0.4VA @ 20VDC max.
- Operating temp.: -30°C to +85°C
- Insulation resistance: 100MΩ min. @ 100VDC
- End-to-end stackable in .100" center

These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

See Our Alcoswitch SIP Switch Offering at [www.Jameco.com/Prod/AlcoSIP](http://www.Jameco.com/Prod/AlcoSIP)



## Grayhill 90B Series Thru-Hole DIP Switches

### Machine Insertable MIDIP

- Tested for TO-116 equipment
- Carry current: 3A
- Dielectric strength: 500V<sub>RMS</sub>
- High-pressure reliable contacts

| Part No. | Product No. | Position | Length (in.) | 1      | 10     | 100    |
|----------|-------------|----------|--------------|--------|--------|--------|
| 473001   | 90B04S      | 4        | 0.470        | \$2.09 | \$1.86 | \$1.68 |
| 473027   | 90B05S      | 5        | 0.570        | 1.75   | 1.64   | .81    |
| 473035   | 90B06S      | 6        | 0.670        | 2.95   | 2.63   | 2.37   |
| 473051   | 90B07S      | 7        | 0.770        | 2.95   | 2.67   | 2.40   |
| 473060   | 90B08S      | 8        | 0.870        | 1.65   | 1.60   | 1.53   |
| 697055   | 90B08ST     | 8        | 0.870        | 1.15   | 1.05   | .97    |
| 473086   | 90B09S      | 9        | 0.970        | 3.09   | 2.80   | 2.52   |
| 473094   | 90B10S      | 10       | 1.070        | 3.29   | 2.95   | 2.66   |

## Grayhill 78 Series Thru-Hole DIP Switches

- Spring ball contact
- Carrying current: 4A
- Dielectric strength: 500V<sub>RMS</sub>
- SPST, raised slides, sealed

| Part No. | Product No. | Position | Length (in.) | 1      | 10     | 100    |
|----------|-------------|----------|--------------|--------|--------|--------|
| 472489   | 78B045S     | 4        | 0.480        | \$1.99 | \$1.87 | \$1.71 |
| 696950   | 78B04ST     | 4        | 0.480        | .93    | .86    | .79    |
| 472518   | 78B055S     | 5        | 0.580        | 2.05   | 1.92   | 1.76   |
| 472542   | 78B065S     | 6        | 0.680        | 1.69   | 1.58   | .78    |
| 472569   | 78B075S     | 7        | 0.780        | 2.19   | 2.15   | 2.10   |
| 472593   | 78B085S     | 8        | 0.880        | 2.35   | 2.22   | 2.11   |
| 696968   | 78B08ST     | 8        | 0.880        | 1.05   | .96    | .88    |
| 696984   | 78B08T      | 8        | 0.880        | .99    | .92    | .85    |
| 472614   | 78B095S     | 9        | 0.980        | 2.25   | 2.12   | 1.94   |
| 472631   | 78B105S     | 10       | 1.080        | 2.29   | 2.15   | 1.97   |
| 472665   | 78B125S     | 12       | 1.280        | 2.49   | 2.45   | 2.35   |

### Recessed Slides

|        |         |   |       |        |        |        |
|--------|---------|---|-------|--------|--------|--------|
| 696992 | 78B04ST | 4 | 0.480 | \$ .93 | \$ .86 | \$ .78 |
|--------|---------|---|-------|--------|--------|--------|

## Grayhill 94H Series Rotary DIP Switches

- Carry current: 100mA @ 50VDC
- Dielectric strength: 250V<sub>RMS</sub>

| Part No. | Cross Ref. No. | Pos. | Code Type | Description                            | Pricing |        |        |
|----------|----------------|------|-----------|--|---------|--------|--------|
|          |                |      |           |  | 1       | 10     | 100    |
| 473271   | 94HAB08        | 8    | Octal     | Flush actuator, PC mount               | \$2.89  | \$2.73 | \$1.73 |
| 473297   | 94HA08BW       | 8    | Octal     | Flush actuator, surface mount          | 2.89    | 2.73   | 1.86   |
| 473318   | 94HAB10        | 10   | BCD       | Flush actuator, PC mount               | 5.39    | 4.84   | 4.36   |
| 697071   | 94HAB10RAT     | 10   | BCD       | Flush actuator, right angle, thru-hole | 3.05    | 2.91   | 2.85   |
| 697080   | 94HAB10T       | 10   | BCD       | Flush actuator, thru-hole              | 2.69    | 2.61   | 2.47   |
| 473342   | 94HAB16        | 16   | HEX       | Flush actuator, PC mount               | 3.59    | 3.40   | 3.24   |
| 697098   | 94HAB16RAT     | 16   | HEX       | Flush actuator, right angle, thru-hole | 3.05    | 2.95   | 2.75   |
| 697101   | 94HAB16T       | 16   | HEX       | Flush actuator, thru-hole              | 2.89    | 2.59   | 2.47   |
| 473465   | 94HBB16        | 16   | HEX       | 0.270" actuator, PC mount              | 2.95    | 2.73   | 1.89   |
| 473473   | 94HBB16RA      | 16   | HEX       | 0.270" actuator, right angle           | 6.49    | 6.17   | 5.84   |

## Grayhill 16-Button Keypad Switch

- 1/2" button centers
- Flange mounted
- Top surface or sub-surface mounting
- Voltage breakdown: 250VAC
- Contact resistance: 10Ω maximum (compatible with MOS, TTL, and DTL)
- Snap-dome contact provides positive feedback
- Rating @ 24VDC: 10mA resistive
- Life expectancy: 3,000,000 operations per button

| Part No. | Product No. | 1       | 10      | 100     |
|----------|-------------|---------|---------|---------|
| 302025   | 86BB2-006   | \$18.55 | \$15.76 | \$11.82 |

## Grayhill Modular Keypad Switch Series 82

- Unlighted for legend inserts
- Rating: 100mA @ 5VDC
- Contact resistance: 25mΩ or less
- Insulation resistance: 1000MΩ min.

| Part No. | Description   | 1      | 10     | 100    |
|----------|---------------|--------|--------|--------|
| 472948   | SPST 1 button | \$4.29 | \$3.92 | \$3.39 |

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

## Grayhill 76 Series Thru-Hole DIP Switches

- SPST rocker
- Carrying current: 5A
- Spring ball contact
- Dielectric strength: 500V<sub>RMS</sub>

### PSB – Piano DIP Style (UP is off)

| Part No. | Product No. | Position | Length (in.) | 1      | 10     | 100    |
|----------|-------------|----------|--------------|--------|--------|--------|
| 696781   | 76PSB02ST   | 2        | 0.280        | \$1.39 | \$1.27 | \$1.15 |
| 696790   | 76PSB02T    | 2        | 0.280        | 1.39   | 1.29   | 1.21   |
| 469554   | 76PSB04     | 4        | 0.480        | 1.79   | 1.71   | .92    |
| 696802   | 76PSB04ST   | 4        | 0.480        | 1.15   | 1.05   | .97    |
| 696811   | 76PSB04T    | 4        | 0.480        | 1.05   | .99    | .89    |
| 469571   | 76PSB05     | 5        | 0.580        | 2.99   | 2.70   | 2.43   |
| 469597   | 76PSB06     | 6        | 0.680        | 1.89   | 1.77   | .88    |
| 469634   | 76PSB08     | 8        | 0.880        | 3.25   | 2.89   | 2.60   |
| 696829   | 76PSB08ST   | 8        | 0.880        | 1.39   | 1.27   | 1.16   |
| 469651   | 76PSB09     | 9        | 0.980        | 3.35   | 3.00   | 2.70   |
| 469677   | 76PSB10     | 10       | 1.080        | 2.09   | 1.99   | .99    |
| 469693   | 76PSB12     | 12       | 1.280        | 2.19   | 2.08   | 1.16   |

### RSB – Raised Rocker Style, Sealed

| Part No. | Product No. | Position | Length (in.) | 1      | 10     | 100    |
|----------|-------------|----------|--------------|--------|--------|--------|
| 469765   | 76RSB04S    | 4        | 0.480        | \$2.69 | \$2.41 | \$2.17 |
| 696845   | 76RSB04ST   | 4        | 0.480        | 1.35   | 1.24   | 1.13   |
| 469781   | 76RSB05S    | 5        | 0.580        | 1.69   | 1.61   | .90    |
| 469802   | 76RSB06S    | 6        | 0.680        | 2.99   | 2.67   | 2.40   |
| 469829   | 76RSB07S    | 7        | 0.780        | 1.75   | 1.66   | .92    |
| 469845   | 76RSB08S    | 8        | 0.880        | 1.85   | 1.71   | .95    |
| 696853   | 76RSB08ST   | 8        | 0.880        | 1.49   | 1.38   | 1.27   |
| 469861   | 76RSB09S    | 9        | 0.980        | 2.25   | 2.05   | 1.86   |

### SB – Raised Rocker Style

| Part No. | Product No. | Position | Length (in.) | 1      | 10     | 100    |
|----------|-------------|----------|--------------|--------|--------|--------|
| 696870   | 76SB02ST    | 2        | 0.280        | \$1.05 | \$ .96 | \$ .88 |
| 696888   | 76SB04ST    | 4        | 0.480        | 1.05   | .96    | .88    |
| 696896   | 76SB04T     | 4        | 0.480        | .89    | .84    | .76    |
| 696909   | 76SB06ST    | 6        | 0.680        | 1.45   | 1.33   | 1.22   |
| 696917   | 76SB08ST    | 8        | 0.880        | 1.45   | 1.32   | 1.19   |
| 696933   | 76SB08T     | 8        | 0.880        | 1.39   | 1.29   | 1.19   |

### Military Qualified

| Part No. | Product No. | Position | Length (in.) | 1      | 10     | 100    |
|----------|-------------|----------|--------------|--------|--------|--------|
| 696773   | 76MSB08S    | 8        | 0.880        | \$9.89 | \$8.99 | \$7.99 |

See Our Complete Grayhill DIP Switch Offering at  
[www.Jameco.com/Prod/GrayhillDIP](http://www.Jameco.com/Prod/GrayhillDIP)

Our goal is to provide you with more of what you want. Let us know how we can better serve your electronics needs.

Please send your requests to [NewProducts@Jameco.com](mailto:NewProducts@Jameco.com).

## 16-Button Indoor/Outdoor Keypads

- 9-pin .100" headers
- Compatible with MOS, TTL and DTL (10Ω max.)
- Contact rating: 24VDC @ 10mA resistive
- Fully sealed snap-dome contact
- Life test: 3,000,000 cycles per key
- Recommended connector: P/N 103191 header and P/N 100766 pin, pg 141
- Size (housing): 4.7"W x 1.7"H x 0.4"T

\* Minimum order 10 pieces

| Part No. | Description             | 1       | 10      | 100     |
|----------|-------------------------|---------|---------|---------|
| 196171   | 2x8 matrix keypad       | \$16.95 | \$14.40 | \$10.80 |
| 152063   | 4x4 matrix keypad       | 14.95   | 13.49   | 11.95   |
| 103191   | Header housing (10-pin) | .42     | .39     | .36     |
| 100766   | Header pin              | *       | .14     | .11     |

## Jameco ValuePro 16-Button Numeric Keypad

- 8-position solder pad
- Contact rating: 24VDC @ 20mA
- Contact resistance: 200Ω max.
- Life test: 1,000,000 life cycles per key
- Size: 3.0"L x 2.8"W x 0.6"H

| Part No. | Description    | 1      | 10     | 100    |
|----------|----------------|--------|--------|--------|
| 169245   | Numeric keypad | \$7.95 | \$6.95 | \$6.25 |

## Jameco ValuePro 12-Button Telephone Keypad

- 8-pin .100" header
- Contact rating: 12VDC @ 20mA
- Contact resistance: 200Ω max.
- White plastic tactile type keypad
- Life test: 1,000,000 cycles per key
- Size: 2.8"L x 2.2"W x 0.6"H

| Part No. | Description    | 1      | 10     | 100    |
|----------|----------------|--------|--------|--------|
| 190561   | Numeric keypad | \$9.65 | \$8.20 | \$6.15 |



## Key Switches

### D6 Series SPST Momentary

- Switching power: 6VA max.
- Operating temp.: -20°C to +85°C
- Contact resistance: ≤100 mΩ

### K6 Series Miniature

- Designed for low-level switching
- Switching voltage: 2VDC/30VDC
- Contact resistance: initial 50 mΩ
- Dielectric strength: ≥300V @ 50Hz

### K12 Series High Performance

- High reliability/long life
- Switching voltage: 2VDC/30VDC
- Contact resistance: initial 50 mΩ
- Dielectric strength: ≥500V @ 50Hz

### PVA Series Short Stroke

- Switching voltage: 50VDC
- Contact resistance: initial ≤100 mΩ
- Dielectric strength: 1,000V or 750V @ 50Hz
- Operating temp.: -40°C to +85°C
- Insulation resistance: ≥10,000MΩ
- Switching power: 3W DC

### Digitast Series Microminiature SPDT

- Switching power: 240mW DC
- Switching voltage: 24VDC
- Contact resistance: initial ≤50 mΩ
- Dielectric strength: 500V @ 50Hz
- Operating temp.: -25°C to +85°C
- Insulation resistance: ≥10,000MΩ

These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

- Easy X, Y coding on single sided PCB
- Dielectric strength: 1,000V for 1 minute @ 50Hz
- Insulation resistance: ≥100,000MΩ

- Switching power: 0.02mW/3W DC
- Operating temp.: -40°C to +85°C
- Insulation resistance: ≥10,000MΩ

- Switching power: 0.02mW/3W DC
- Operating temp.: -40°C to +85°C
- Insulation resistance: ≥10,000MΩ



D6 Series



K6 Series



PVA Series



Digitast

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## Keyboard Switches

### ML Series Notebook Profile .27"

- Normally open contact
- Volt.: 12VAC/DC max, 2VDC min.
- Current: 10mA AC/DC max, 100µA DC min.
- Insulation resist.: 100MΩ @ 100VDC
- Life: >20 million operations



ML Series

### MX Series Desktop Profile .60"

- PCB or frame mount
- Volt.: 12VAC/DC max, 2VDC min.
- Current: 10mA AC/DC max, 10µA DC min.
- Insulation resistance: 100MΩ @ 100VDC



MX Series

These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

See Our Complete Keyboard Switch Offering at [www.Jameco.com/Prod/CherryKbdSwitches](http://www.Jameco.com/Prod/CherryKbdSwitches)

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 322.



## Potter & Brumfield General Purpose Relays

- Industry standard termination for quick installation
- UL/CSA approved
- Wide range of coil voltages for industrial and commercial applications
- Contact arrangements from SPDT to 4PDT



Fig. 1



Fig. 2



Fig. 3



























Fig. 4



Fig. 5

Lower \$\$\$

| Part No. | Product No.  | Tyco No.    | Fig. | Contact Form   | Contact Rating            | Coil Voltage | Coil Resis. (Ω) | Coil Curr. (mA) | Mating Socket* |          | Pricing |        |        |        |
|----------|--|-------------|------|--|---------------------------|--------------|-----------------|-----------------|----------------|----------|---------|--------|--------|--------|
|          |  |             |      |  |                           |              |                 |                 | Standard       | DIN Rail | 1       | 10     | 25     | 50     |
| 282247   | K10P-11A15-120  | 4-1393144-0 | 1    | DPDT   | 15A @ 30VDC; 15A @ 120VAC | 120VAC       | 3,900           | 11              | 27E488/489     | 27E895   | \$6.99  | \$6.49 | \$6.09 | \$5.67 |
| 282255   | K10P-11D15-12   | 5-1393144-5 | 1    | DPDT   | 15A @ 30VDC; 15A @ 120VAC | 12VDC        | 160             | 75              | 27E488/489     | 27E895   | 7.25    | 6.90   | 6.54   | 5.99   |
| 282263   | K10P-11D15-24   | 5-1393144-7 | 1    | DPDT   | 15A @ 30VDC; 15A @ 120VAC | 24VDC        | 650             | 37              | 27E488/489     | 27E895   | 7.29    | 6.55   | 6.35   | 6.05   |
| 282271   | KHAU-17A11-120  | 2-1393122-0 | 2    | 4PDT   | 3A @ 120VAC/28VDC (max)   | 120VAC       | 3,900           | 11              | 27E166         | 27E894   | 7.15    | 6.99   | 6.81   | 6.66   |
| 498013   | KHAU-17A18-240  | 4-1393122-0 | 2    | 4PDT   | 3A @ 120VAC/28VDC (max)   | 240VAC       | 12,000          | 6               | 27E166         | 27E894   | 15.29   | 14.54  | 12.80  | 11.26  |
| 282301   | KHAU-17D11-12   | 4-1393122-3 | 2    | 4PDT   | 3A @ 120VAC/28VDC (max)   | 12VDC        | 160             | 100             | 27E166         | 27E894   | 5.69    | 5.52   | 5.50   | 5.45   |
| 498048   | KHAU-17D11-24   | 4-1393122-4 | 2    | 4PDT   | 3A @ 120VAC/28VDC (max)   | 12VDC        | 650             | 52              | 27E166         | 27E894   | 9.65    | 9.17   | 8.07   | 7.10   |
| 282319   | KHAU-17D12-24   | 5-1393122-7 | 2    | 4PDT   | 5A @ 120VAC/28VDC (max)   | 24VDC        | 650             | 52              | 27E166         | 27E894   | 5.95    | 5.46   | 5.43   | 5.39   |
| 282351   | KRPA-11AG-24    | 1-1393105-2 | 3    | DPDT  | 10A @ 240VAC              | 24VAC        | 85              | 84              | 27E122         | 27E891   | 10.79   | 10.37  | 10.19  | 10.01  |
| 282343   | KRPA-11AG-120   | 2-1393104-5 | 3    | DPDT  | 10A @ 240VAC              | 120VAC       | 2,250           | 17.5            | 27E122         | 27E891   | 11.05   | 10.80  | 10.50  | 10.31  |
| 282378   | KRPA-11DG-12    | 4-1393104-3 | 3    | DPDT  | 10A @ 240VAC              | 12VDC        | 120             | 100             | 27E122         | 27E891   | 11.29   | 10.83  | 10.36  | 10.15  |
| 282386   | KRPA-11DG-24    | 4-1393104-5 | 3    | DPDT  | 10A @ 240VAC              | 24VDC        | 472             | 51              | 27E122         | 27E891   | 12.25   | 11.65  | 11.30  | 10.51  |
| 301188   | KRPA-14DG-12    | 8-1393104-2 | 3    | 3PDT   | 10A @ 240VAC              | 12VDC        | 120             | 100             | 27E123         | 27E892   | 13.95   | 13.55  | 13.16  | 12.21  |
| 282423   | KRPA-14DG-24    | 8-1393104-4 | 3    | 3PDT  | 10A @ 240VAC              | 24VDC        | 472             | 51              | 27E123         | 27E892   | 13.15   | 11.93  | 11.85  | 11.77  |
| 301196   | KRPA-14DG-48    | 8-1393104-5 | 3    | 3PDT   | 10A @ 240VAC              | 48VDC        | 1,800           | 26.6            | 27E123         | 27E892   | 20.35   | 19.26  | 18.09  | 17.01  |
| 301209   | KRPA-14DG-110   | 8-1393104-1 | 3    | 3PDT   | 10A @ 240VAC              | 110VDC       | 10,000          | 11.5            | 27E123         | 27E892   | 14.05   | 13.40  | 12.78  | 12.23  |
| 301217   | KRPA-14DN-24    | 9-1393104-0 | 3    | 3PDT  | 10A @ 240VAC              | 24VDC        | 472             | 51              | 27E123         | 27E892   | 13.75   | 13.16  | 12.58  | 12.51  |
| 282458   | KUHP-11A51-120  | 6-1393114-9 | 4    | DPDT   | 20A @ 120/240VAC          | 120VAC       | 1,700           | 24              | —              | —        | 11.09   | 10.89  | 10.85  | 10.75  |
| 499374   | KUMP-14A18-12   | 8-1393116-3 | 5    | 3PDT   | 15A @ 277VAC              | 12VAC        | 18              | 230             | 27E121         | 27E893   | 19.55   | 19.04  | 18.12  | 14.69  |
| 499526   | KUMP-7A58-24    | 9-1393116-7 | 5    | DPST NO  | 15A @ 277VAC              | 24VAC        | 72              | 115             | 27E121         | 27E893   | 18.75   | 18.27  | 17.36  | 12.84  |
| 499534   | KUMP-7D58-12    | 8-1393116-9 | 5    | DPST NO  | 15A @ 277VAC              | 12VDC        | 120             | 100             | 27E121         | 27E893   | 16.05   | 15.37  | 14.07  | 13.64  |
| 499585   | KUP-11A15-24    | 2-1393117-1 | 5    | DPDT   | 10A @ 28VDC or 240VAC     | 24VAC        | 85              | 84              | 27E121         | 27E893   | 14.45   | 13.77  | 12.61  | 10.67  |
| 499569   | KUP-11A15-120   | 1-1393117-9 | 5    | DPDT   | 10A @ 28VDC or 240VAC     | 120VAC       | 2,250           | 17.5            | 27E121         | 27E893   | 14.45   | 13.77  | 12.61  | 10.67  |
| 499796   | KUP-11D15-12    | 4-1393117-4 | 5    | DPDT   | 10A @ 28VDC or 240VAC     | 12VDC        | 120             | 100             | 27E121         | 27E893   | 14.45   | 13.77  | 12.61  | 10.67  |
| 499817   | KUP-11D15-36    | 4-1393117-6 | 5    | DPDT   | 10A @ 28VDC or 240VAC     | 36VDC        | 1,800           | 26.7            | 27E121         | 27E893   | 15.35   | 14.97  | 14.24  | 11.55  |
| 499788   | KUP-11D15-110   | 4-1393117-3 | 5    | DPDT   | 10A @ 28VDC or 240VAC     | 110VDC       | 10,000          | 11              | 27E121         | 27E893   | 14.45   | 13.77  | 12.61  | 10.67  |
| 282482   | KUP-14A35-120  | 8-1393117-7 | 5    | 3PDT  | 10A @ 28VDC or 240VAC     | 120VAC       | 1,700           | 24              | 27E121         | 27E893   | 13.39   | 12.46  | 11.80  | 11.45  |

\* For sockets see page 194

 = Silver-cadmium oxide, no lamp

 = Silver-cadmium oxide with lamp

 = with indicator lamp

 = Limited Quantity Available

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## General Purpose Relays

**LB2 Series**

- Contact rating: 240VAC/30VDC @ 12A • DPDT
- Mechanical life: 10,000,000 operations • 8-pin
- Electrical life: 100,000 operations min. at rated load

Blue Part No. = Limited Quantity

| Part No. | Mfg. P/N  | P & B Cross Ref. | Coil Voltage | 1      | 10     | 50     | 100    |
|----------|-----------|------------------|--------------|--------|--------|--------|--------|
| 172719   | LB2-12DS  | K10-11D15-12     | 12VDC        | \$4.99 | \$4.49 | \$3.99 | \$3.59 |
| 175565   | LB2-24DS  | K10-11D15-24     | 24VDC        | 5.99   | 5.49   | 4.93   | 4.49   |
| 175572   | LB2-110AS | K10-11A15-120    | 110VAC       | 6.25   | 5.62   | 4.50   | 3.37   |

## General Purpose Relays

**LB4H Series**

- Insulation resistance: 1,500MΩ @ 500VDC
- Mechanical life: 10,000,000 operations • 4PDT
- Contact rating: 240VAC/30VDC @ 5A • 14-pin
- Electrical life: 100,000 operations min. at rated load

| Part No. | Mfg. P/N   | P & B Cross Ref. | Coil Voltage | 1      | 10     | 25     | 50     |
|----------|------------|------------------|--------------|--------|--------|--------|--------|
| 291506   | LB4H-12DS  | KHAU-17D12-12    | 12VDC        | \$4.45 | \$4.33 | \$4.20 | \$4.03 |
| 175601   | LB4H-24DS  | KHAU-17D12-24    | 24VDC        | 5.09   | 4.93   | 4.77   | 3.58   |
| 175610   | LB4H-110AS | KHAU-17A12-120   | 110VAC       | 4.69   | 4.22   | 3.38   | 3.31   |

## Relay Socket

Quantity SAVE

DIN rail snap socket for LB2 & LB4H relays

| Part No. | Mfg. P/N  | P & B Cross Ref. | Pins | 1      | 10     | 50     |
|----------|-----------|------------------|------|--------|--------|--------|
| 175530   | PTF-08A-A | 27E895           | 8    | \$5.95 | \$5.39 | \$4.85 |
| 175556   | PYF-14A-A | 27E894           | 14   | 3.95   | 3.35   | 2.52   |

## Beta Electric General Purpose Relays

**Pin Type Terminals**

- DPDT • 8-pin octal style plug
- Contact rating: 120/240VAC, 28VDC @ 10A
- Ambient operating temp.: -10°C to +50°C
- Size: 1.4"L x 1.4"W x 2.7"H

Quantity SAVE

| Part No. | Product No.    | NTE Cross Ref. | Coil Voltage | 1      | 10     | 50     |
|----------|----------------|----------------|--------------|--------|--------|--------|
| 139766   | BTA1-2C-12VDC  | R02-11D10-12   | 12VDC        | \$9.29 | \$7.90 | \$5.93 |
| 139741   | BTA1-2C-120VAC | R02-11A10-120  | 120VAC       | 9.95   | 8.79   | 7.99   |

## BTA1 Series Relays

| Part No. | Product No.    | NTE Cross Ref. | Coil Voltage | 1      | 10     | 50     |
|----------|----------------|----------------|--------------|--------|--------|--------|
| 139766   | BTA1-2C-12VDC  | R02-11D10-12   | 12VDC        | \$9.29 | \$7.90 | \$5.93 |
| 139741   | BTA1-2C-120VAC | R02-11A10-120  | 120VAC       | 9.95   | 8.79   | 7.99   |

## BTA1 Series Sockets (250 VAC, 20 Amps)

| Part No. | Product No. | Pins | Dimensions            | 1      | 10     | 50     |
|----------|-------------|------|-----------------------|--------|--------|--------|
| 141145   | PF-083A     | 8    | 2.0"L x 1.6"W x 0.8"H | \$3.99 | \$3.65 | \$2.99 |
| 141153   | PF-113A     | 11   | 2.0"L x 1.7"W x 1.2"H | 4.65   | 3.95   | 2.96   |

## BTA2 Series Quick Connect Blade Terminal

Flat terminals (0.187" x 0.020") for standard plug-in mounting; also accepts quick-connect receptacles or direct soldering.

- Contact rating: 120VAC/28VDC @ 13A; 240VAC @ 10A
- Ambient operating temperature: -30°C to +50°C
- Size: 1.5"L x 1.4"W x 2.2"H • 3PDT • 11-pin

| Part No. | Product No.   | NTE Cross Ref. | Coil Voltage | 1      | 10     | 50     |
|----------|---------------|----------------|--------------|--------|--------|--------|
| 139854   | BTA2-3C-24VDC | R10-14D10-24   | 24VDC        | \$7.85 | \$6.67 | \$5.00 |

## Input/Output Module Relays

- Switch form: SPST-NO • Isolation: 4,000Vrms, 60Hz
- Capacitance: 8pF typical (input to output)

| Part No. | Product No. | Color  | Voltage | Resistance | 1       | 10      | 25      | 50     |
|----------|-------------|--------|---------|------------|---------|---------|---------|--------|
| 637600   | IAC-5       | Yellow | 5VDC    | 28KΩ       | \$11.05 | \$10.52 | \$10.02 | \$8.82 |
| 551822   | OACM-5H     | Black  | 5VDC    | 220Ω       | 14.15   | 13.40   | 12.73   | 12.11  |
| 282511   | ODC-5       | Red    | 5VDC    | 250Ω       | 9.55    | 9.38    | 9.30    | 9.26   |
| 551857   | ODC-5A      | Red    | 5VDC    | 1000Ω      | 14.79   | 14.08   | 13.28   | 12.64  |
| 551831   | ODC-15      | Red    | 15VDC   | 1000Ω      | 11.69   | 11.11   | 10.58   | 9.63   |
| 551849   | ODC-15A     | Red    | 15VDC   | 1000Ω      | 13.99   | 13.21   | 12.64   | 11.51  |
| 551865   | ODCM-15     | Red    | 15VDC   | 1000Ω      | 14.75   | 13.88   | 13.09   | 12.35  |
| 551873   | ODCM-uA     | Red    | 15VDC   | 1000Ω      | 16.15   | 15.36   | 14.63   | 14.22  |

## Industrial Relays

### T7C Series General Purpose

- SPDT • PCB through hole
- Coil magnetic system: monostable
- Nominal coil power: 360mW
- Contact material: silver cadmium oxide

| Part No. | Product No. | Coil Volt. | Coil Resistance | 1      | 10     | 25     | 50     |
|----------|-------------|------------|-----------------|--------|--------|--------|--------|
| 637642   | T7CS5D-12   | 12VDC      | 400Ω            | \$1.14 | \$1.12 | \$1.10 | \$1.08 |

## S87R Series Low Cost 20A

- DPDT • Nominal power: 4.5W
- Coil terminal: located perpendicular to switch terminals
- Nominal coil current: 188mA • 0.250" quick connect solder
- Material: silver and silver cadmium oxide
- Expected life: 1 million operations, mechanical; 50,000 operations@rated load • Initial breakdown voltage: 1500V<sub>RMS</sub>, 60Hz

| Part No. | Product No.    | Coil Volt. | Coil Resistance | 1       | 10      | 25      | 50      |
|----------|----------------|------------|-----------------|---------|---------|---------|---------|
| 552788   | S87R11D2B1D124 | 24VDC      | 12Ω             | \$45.19 | \$43.07 | \$41.02 | \$39.07 |

## General Purpose R10-E1Y4 Series

- Coil magnetic system: monostable • 3-48 mounting stud, socket
- Contact material: fine silver • Termination: solder terminals
- Contact rating: 3A • Contact form: 4PDT
- Nominal coil power: 500mW

| Part No. | Product No.    | Coil Volt. | Coil Resistance | 1       | 10      | 25      | 50      |
|----------|----------------|------------|-----------------|---------|---------|---------|---------|
| 552690   | R10-E1Y4-V2.5K | 48VDC      | 2500Ω           | \$16.45 | \$15.70 | \$14.65 | \$14.21 |

## Relay Sockets

Lower \$\$\$

282132 282183 282124 282191

## Relay Sockets for KRPA Series (Octal)

| Part No. | Product No. | Contact Arr. | Pins | Type     | 1      | 10     | 25     | 50     |
|----------|-------------|--------------|------|----------|--------|--------|--------|--------|
| 282132   | 27E122      | DPDT         | 8    | Standard | \$3.95 | \$3.80 | \$3.66 | \$3.57 |
| 282159   | 27E891      | DPDT         | 8    | DIN Rail | 4.55   | 4.33   | 4.16   | 3.83   |
| 282141   | 27E123      | 3PDT         | 11   | Standard | 4.55   | 4.36   | 4.18   | 3.90   |

## Relay Socket for KHAU Series

| Part No. | Product No. | Contact Arr. | Pins | Type     | 1      | 10     | 25     | 50     |
|----------|-------------|--------------|------|----------|--------|--------|--------|--------|
| 282183   | 27E894      | 4PDT         | 14   | DIN Rail | \$6.95 | \$6.68 | \$6.41 | \$5.92 |

## Relay Sockets for KUP Series (11-blade square)

| Part No. | Product No. | Contact Arr. | Pins | Type     | 1      | 10     | 25     | 50     |
|----------|-------------|--------------|------|----------|--------|--------|--------|--------|
| 282124   | 27E121      | 3PDT         | 11   | Standard | \$5.85 | \$5.62 | \$5.40 | \$4.98 |

## Relay Socket for K10 Series (8-blade square)

| Part No. | Product No. | Contact Arr. | Pins | Type     | 1      | 10     | 25     | 50     |
|----------|-------------|--------------|------|----------|--------|--------|--------|--------|
| 282191   | 27E895      | DPDT         | 8    | DIN Rail | \$4.69 | \$4.51 | \$4.33 | \$4.06 |

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## Mounting Boards for Input/Output Module

### 210 Series

- LED status indicators, plug-in fuses and pull-up resistors
- Screw terminal logic connections
- Screw terminals for field wiring
- UL recognized/CSA certified for 125V max. w/ 5A fuses; 250V max w/ #22 AWG solid copper jumper wires

| Part No. | Product No. | I/O channels | Module Positions | 1       | 10      | 25      | 50      |
|----------|-------------|--------------|------------------|---------|---------|---------|---------|
| 497109   | 2104A       | 4            | 4                | \$37.45 | \$34.27 | \$32.36 | \$31.10 |
| 497117   | 2104B       | 4            | 4                | 37.45   | 34.27   | 32.36   | 31.10   |
| 497125   | 2104C       | 4            | 4                | 37.69   | 35.89   | 34.17   | 32.53   |

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♣ RoHS compliant product    ♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



## PB CDB Series CMOS IC Time Delay Relay

- Initial dielectric strength: between open contacts – 500V<sub>RMS</sub>, 60Hz; between other contacts – 500V<sub>RMS</sub>, 60Hz
- Timing ranges: 0.1 seconds to 180 seconds
- Timing adjustment: knob type • DPDT
- Release and recycle time: 45ms typical; 60ms max.
- Contact material: silver-cadmium oxide alloy
- Contact rating: 10A @ 30VDC or 277VAC resistive
- Electrical life: 10,000 operations min. @ rated load

**Power requirement:** AC or DC – typically less than 3W

| Part No. | Product No.  | Voltage | Time (sec) | Pins | 1              | 10       | 25       |
|----------|--------------|---------|------------|------|----------------|----------|----------|
| 497299   | CDB-38-70004 | 120VAC  | 0.6 – 60   | 8    | ..... \$246.09 | \$234.39 | \$223.23 |



## PB CNM5 Series Multi-Function Time Delay Relay

- For plug-in or panel mount • DPDT
- Digital adjustment via thumbwheel switches
- Timing ranges: 0.1 – 99.9/1 to 999 seconds; 0.1 – 99.9/1 to 999 minutes; 0.1 – 99.9/1 – 999/10 – 9,990 hours
- Reset time (power interruption): 45ms typical; 60ms max.
- Initial dielectric strength: between output poles – 1500V<sub>RMS</sub>, 60Hz; between input and output – 1500V<sub>RMS</sub>, 60Hz
- Contact material: silver-cadmium oxide alloy
- Contact rating: 10A @ 30VDC or 277VAC resistive
- Electrical life: 100,000 operation min. @ rated load
- 1/16 black plastic case • Transient protection: 13 joules MOV

**Power requirement:** 3W @ 120VAC

| Part No. | Product No. | Voltage | Pins | 1             | 10      | 25      |
|----------|-------------|---------|------|---------------|---------|---------|
| 497344   | CNM5        | 120VAC  | 11   | ..... \$82.29 | \$78.39 | \$74.66 |



## PB CNS Series Multifunction Time Delay Relays

- DPDT • Rating: 10A @ 30VDC or 277VAC
- Electrical life: 100,000 operations at rated load
- Dielectric strength: 1,000V<sub>RMS</sub>, 60Hz between open contacts; 1,500V<sub>RMS</sub>, 60Hz between all other contacts

**Power requirement:** 10W @ 240VAC/VDC; 5W @ 120VAC/VDC; 1W @ 25VAC/VDC

| Part No. | Product No. | Voltage       | Timing Functions | Pins | 1             | 10      | 25      |
|----------|-------------|---------------|------------------|------|---------------|---------|---------|
| 497352   | CNS-35-72   | 120VAC        | 4                | 8    | ..... \$82.85 | \$78.91 | \$75.16 |
| 282212   | CNS-35-92   | 24-240VAC/VDC | 4                | 8    | ..... 67.89   | 62.23   | 56.57   |
| 282221   | CNS-35-96   | 24-240VAC/VDC | 8                | 11   | ..... 79.05   | 75.46   | 71.87   |



## PB CNT Series Multifunction, Digital Time Delay Relay/Counter

- Digital adjustment via thumbwheel switches
- Maximum count: 1 to 999; 10 to 9,990; 100 to 99,900
- Maximum count rate: 100 counts per second • DPDT
- Rating: 10A @ 30VDC or 277VAC resistive • 11-pin octal style plug
- Electrical life: 100,000 operations min. at rated load
- Dielectric strength: 1,000V<sub>RMS</sub>, 60Hz between open contacts; 1,500V<sub>RMS</sub> between all other contacts • Blue P/N = Limited Quantity Available

**Power requirement:** 10W @ 240VAC/VDC; 5W @ 120VAC/VDC; 1W @ 24VAC/VDC

| Part No. | Product No. | Voltage       | 1             | 10      | 25      |
|----------|-------------|---------------|---------------|---------|---------|
| 497432   | CNT-35-26   | 120VAC        | ..... \$98.85 | \$86.96 | \$80.43 |
| 282239   | CNT-35-96   | 24-240VAC/VDC | ..... 103.95  | 100.20  | 98.23   |





## Grayhill Dry Contact & Mechanical Relay Output Module

- Contact arrangement: SPST NO
- Max. current rating: 10W
- Min. drop-out voltage: 2.5VDC • Max. contact resistance: 250mΩ
- Max. off-state leakage current: 0.002mA • Nominal logic voltage: 5Vcc
- UL, CSA certified • 1500VAC optical isolation
- Built-in status LED • Max. rev. logic voltage: -5VDC

| Part No. | Product No. | Max. Logic Supply Current | Max. Line Voltage | Nom. Input Resistance | 1             | 10      | 25      |
|----------|-------------|---------------------------|-------------------|-----------------------|---------------|---------|---------|
| 469458   | 70M-ODC5R   | 10mA                      | 100VDC/120VAC     | 50Ω                   | ..... \$20.05 | \$19.02 | \$18.07 |

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

## PB CS Series Solid State Hybrid Voltage Sensors

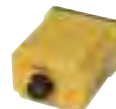
- Power requirements: typically less than 3W
- Continuous duty cycle
- Internal contact arrangement: DPDT
- Internal relay contact rating: 10A @ 28VDC resistive; or 120VAC
- Reverse polarity protection on DC types
- 8-pin octal style plug, plastic dust cover

**Fixed pick-up and adjustable drop-out**

| Part No. | Product No.  | Pick-up Voltage | Drop-out Voltage | Max. Voltage | 1              | 10       | 25       |
|----------|--------------|-----------------|------------------|--------------|----------------|----------|----------|
| 497491   | CSJ-38-71010 | 105             | 90-103           | 140VAC       | ..... \$173.99 | \$165.70 | \$157.81 |

497491

497504



**Adjustable pick-up and adjustable drop-out**

| Part No. | Product No.  | Pick-up Voltage | Drop-out Voltage | Max. Voltage | 1              | 10       | 25       |
|----------|--------------|-----------------|------------------|--------------|----------------|----------|----------|
| 497504   | CSL-38-30010 | 20-30           | 18-28            | 32VDC        | ..... \$189.09 | \$179.65 | \$170.67 |



## DC Input Module

- Fast switching polarized input types
- UL/CSA/CE certified • Optical isolation
- Output current range: 1 – 50 mA
- Min. output breakdown voltage: 50VDC
- Isolation voltage: 4000V<sub>RMS</sub>
- Max. input voltage: 32VDC
- Max. pick-up voltage: 3VDC • Max. drop-out voltage: 1VDC
- Input current @ max. input voltage: 18mA • Nominal logic voltage: 5
- Max. logic supply current @ nominal Vcc: 10mA

| Part No. | Product No. | Input Voltage Range | Resistance | 1            | 10     | 25     |
|----------|-------------|---------------------|------------|--------------|--------|--------|
| 469423   | 70M-IDC5    | 3-32VDC             | 1.8kΩ      | ..... \$8.59 | \$8.15 | \$7.74 |



## DC Output Modules

- Transient protection: meets the requirements of IEEE-472 "Surge Withstanding Capability Test"
- Contact arrangement: SPST NO
- Load current range: STD-70 series – 0.02 to 3.5A; Mini 70M series – 0.02 to 3A • UL/CSA/CE certified
- Nominal logic voltage: 5Vcc • Optical isolation
- Surge current for 1 second: 5A • Isolation voltage: 4000V<sub>RMS</sub>
- Max. reverse logic voltage: -5VDC • Min. drop-out voltage: 1VDC

| Part No. | Product No. | Max. Logic Supply Current | Max. Line Voltage | Clamping Voltage | 1             | 10      | 25      |
|----------|-------------|---------------------------|-------------------|------------------|---------------|---------|---------|
| 469431   | 70M-ODC5    | 14mA                      | 60VDC             | 80VDC            | ..... \$11.59 | \$11.00 | \$10.45 |
| 469440   | 70M-ODC5A   | 18mA                      | 200VDC            | 360VDC           | ..... 19.49   | 18.52   | 17.59   |
| 469466   | 70-ODC5     | 14mA                      | 60VDC             | 80VDC            | ..... 11.59   | 11.00   | 10.45   |



[See Complete Grayhill I/O Modules Offering at www.Jameco.com/Prod/GrayhillModules](http://www.Jameco.com/Prod/GrayhillModules)



## Series IDC DC Input Modules

- Nominal input voltage: 24VDC
- Input voltage range: 10 – 36VDC
- Max. input current: 16mADC
- Nominal logic voltage: 5VDC
- Logic voltage range: 1.5 – 6VDC
- Typical logic supply current: 10mADC
- Max. logic supply current: 18mADC
- Max. output voltage: 30VDC
- Isolation: 4000V<sub>RMS</sub>
- Max. output current: 50mADC
- UL/CSA/CE approved

| Part No. | Product No. | Description          | 1             | 10      | 50      | 100     |
|----------|-------------|----------------------|---------------|---------|---------|---------|
| 479533   | IDC5BQ      | Quad DC input module | ..... \$51.35 | \$40.90 | \$38.72 | \$36.78 |
| 479550   | IDC5Q       | Quad DC input module | ..... 44.55   | 42.33   | 40.31   | 38.37   |
| 479541   | IDC5D       | Dual DC input module | ..... 8.15    | 6.50    | 6.18    | 5.90    |



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## Circuit Breakers



- Quick connect style terminals
- Actuator: black plastic button
- Mounting hole: 0.450"
- Included hardware: nut, knurled nut, ID plate

| Part No. | Product No. | Current Rating   | 1      | 10     | 50     | 100    |
|----------|-------------|------------------|--------|--------|--------|--------|
| 621368   | 35-2104     | 4A @ 125/250VAC  | \$4.75 | \$3.69 | \$3.49 | \$3.29 |
| 621376   | 35-2105     | 5A @ 125/250VAC  | 4.75   | 3.69   | 3.49   | 3.29   |
| 621384   | 35-2106     | 6A @ 125/250VAC  | 4.75   | 3.69   | 3.49   | 3.29   |
| 621392   | 35-2107     | 7A @ 125/250VAC  | 4.75   | 3.69   | 3.49   | 3.29   |
| 621405   | 35-2018     | 8A @ 125/250VAC  | 4.75   | 3.69   | 3.49   | 3.29   |
| 621413   | 35-2110     | 10A @ 125/250VAC | 4.75   | 3.69   | 3.49   | 3.29   |
| 621421   | 35-2112     | 12A @ 125/250VAC | 4.75   | 3.69   | 3.49   | 3.29   |
| 621430   | 35-2115     | 15A @ 125/250VAC | 4.75   | 3.69   | 3.49   | 3.29   |
| 621448   | 35-2120     | 20A @ 125/250VAC | 4.75   | 3.69   | 3.49   | 3.29   |
| 621456   | 35-2125     | 25A @ 125/250VAC | 4.75   | 3.69   | 3.49   | 3.29   |
| 621464   | 35-2130     | 30A @ 125/250VAC | 4.75   | 3.69   | 3.49   | 3.29   |



## Universal Circuit Breakers

Function identically as OEM breakers but offer the versatility of snap off terminals for greater flexibility. SAE Type II modified reset used primarily as a wiring harness protector in 12 volt DC automotive systems. Conforms to SAE J553C standard. For mounting in ATO style fuse blocks and panels.

| Part No. | Product No. | Amp Rating | 1      | 10     | 25     | 50     |
|----------|-------------|------------|--------|--------|--------|--------|
| 638194   | UCB15BP     | 15         | \$5.99 | \$5.69 | \$5.39 | \$5.09 |
| 638207   | UCB20BP     | 20         | 5.99   | 5.69   | 5.39   | 5.09   |
| 638215   | UCB30BP     | 30         | 5.99   | 5.69   | 5.39   | 5.09   |

To Find Additional Littelfuse Breakers, Visit Our Website at [www.Jameco.com/Prod/Littelfuse](http://www.Jameco.com/Prod/Littelfuse)



## W58 Series Thermal Circuit Breakers



- Max. operating voltage: 50VDC; 250VAC 50/60Hz
- Interrupt capacity: 2,000A @ 50VDC; 1,000A @ 250VAC 50/60Hz
- Endurance cycling: >1,000 operations @ 200% of rating
- Dielectric strength: >1,500VRMS
- Push button to reset breaker

Blue Part No. = Limited Quantity Available

| Part No. | Product No.   | Amp | Resistance | 1      | 25     | 50     | 100    |
|----------|---------------|-----|------------|--------|--------|--------|--------|
| 282562   | W58-XB1A4A-10 | 10  | 0.014      | \$3.39 | \$3.19 | \$2.99 | \$2.79 |
| 282571   | W58-XB1A4A-15 | 15  | 0.010      | 3.39   | 3.19   | 2.99   | 2.79   |
| 282589   | W58-XB1A4A-20 | 20  | 0.006      | 3.39   | 3.19   | 2.99   | 2.79   |

See Complete P&B Breaker Offering at [www.Jameco.com/Prod/PBBreakers](http://www.Jameco.com/Prod/PBBreakers)



## Thermal Circuit Breakers

### W23/W33 Series Toggle or Push/Pull Actuator

- 0.5 to 50 amp ratings may be used as on/off switch
- Cannot be reset against overload
- Max. operating voltage: 50VDC or 250VAC to 400Hz
- Dielectric strength: over 1500VRMS



W33 Series

### W28 Series Switchable or Push to Reset

- Rocker on switchable model moves to "overload" position upon trip
- Approved to many international standards (push to reset type)
- Max. operating voltage: 32VDC, 250VAC to 50/60Hz
- Dielectric strength: over 1500VRMS
- Fuseholder type



W28 Series

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## Power Modules



B-2T Series



F18 Series



M50 Series

### B-2T/B-2 Series SCR/Diode Module

- 25-42.5 amp
- For AC/DC voltage to 15kW

### F18 Series SCR/Diode Module

- 25-105 amp
- Power control building blocks

### L3/L5/L6 Series SCR/Diode Module

- 15-42.5 amp
- Low profile

### M50 Series SCR/Diode Module

- 50-100 amp
- Over 40kW output capability

### M50 Diode Series Diode Module

- 60-100 amp
- High surge current rectifier circuits

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See Complete Power Module Offering at [www.Jameco.com/Prod/CrydomPower](http://www.Jameco.com/Prod/CrydomPower)



## Auxiliary Modules



LPCV Series



PCV Series



RPC Series

### CPV Series Phase Control Module

- 120 & 240VAC models
- 0-5VDC phase control

### LPCV Series Linear Proportional Load Controller

- 0-5VDC, 0-10VDC, 4-20mA input control modules
- Optically isolated

### PCV Series Analog Input Power Controller

- SCR output
- 15-90 Amp
- 100-240VRMS
- AC proportional output
- 2-7VDC and 2-10VDC

### RPC Series Solid State Proportional Controller

- SCR output
- 15-40 Amp
- 120/240/480VRMS
- AC proportional output
- 500k or 1MΩ potentiometer control

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See Complete Auxiliary Modules Offering at [www.Jameco.com/Prod/CrydomAux](http://www.Jameco.com/Prod/CrydomAux)



## Power PC Board Relays



T9A Series



T90 Series



T92 Series

### T9A Series DC Coil

- Up to 30 amp switching in SPST & 20 amp in SPDT arrangements
- Voltage: 5 to 110VDC
- Nominal coil power: 1.0W or 900mW (approx.)
- Maximum coil power: 2.8W

### T90 Series DC Coil

- Up to 30 amp switching in SPST & 20 amp in SPDT arrangements
- Voltage: 5 to 110VDC
- Maximum coil power: 2.8W

### T92 Series DC Coil

- 30A DPST-NO and DPDT switching capabilities
- Designed to control compressor loads to 3.5 tons, 25.3 FLA, 110 LRA
- Voltage: 12-110VDC & 12 to 277VAC

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See Complete P&B Power PC Relays Offering at [www.Jameco.com/Prod/PBPowerPCB](http://www.Jameco.com/Prod/PBPowerPCB)

## OMRON G7L Series Power Relay

- Rating: 24VDC @ 79mA
- Contact rating: 20A-220VAC
- Coil resistance: 303Ω
- Contact resistance: 50mΩ max.
- 0.250" quick connect terminals
- Insulation resistance: 1,000MΩ min. (@500VDC)
- Dielectric withstanding voltage: 5,000VAC for one minute between contacts and coil, 2000VAC between contacts of same polarity
- SPST-NO



| Part No. | Product No.        | 1      | 10     | 50     |
|----------|--------------------|--------|--------|--------|
| 454571   | G7L-1A-TUB-CB-DC24 | \$9.95 | \$8.95 | \$8.05 |

▲ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

## Relay Socket with Coil Diode

### VF4 Type

- 12 AWG: 2 black & 1 blue wire;
- 18 AWG: 1 black & 1 red wire
- Contact voltage/current: 12V/20A
- Use with P/N 148582, pg 197
- Diode coil suppression
- 7.5" wire



| Part No. | Cross Ref. No. | 1      | 10     | 50     | 100    |
|----------|----------------|--------|--------|--------|--------|
| 170624   | RSD03          | \$2.35 | \$2.15 | \$1.89 | \$1.55 |

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## Solid State Relays

Lower \$\$\$

### Series SDV/SDI Solid State

- Operating voltage range: 12 – 128V<sub>RMS</sub>
- Insulation resistance (min.) @ 500VDC: 10<sup>9</sup>Ω
- Max. capacitance, input-output: 2pF
- Load current range: 0.025 – 1.5A<sub>RMS</sub>
- Transient over voltage: 600Vpk
- Max. surge current: 30Apk

Dielectric strength: 3750V<sub>RMS</sub>

### SDV Series:

- Control voltage range: 3.5 – 10VDC
- Typical input current @ 5VDC: 15mA
- Must turn-on voltage: 3.5VDC
- Must turn-off voltage: 1VDC

### SDI Series:

- Control current range: 10 – 35mA
- Must turn-on current: 10mA
- Must turn-off current: 1mA

| Part No. | Product No. | Description          | 1      | 10     | 50     | 100    |
|----------|-------------|----------------------|--------|--------|--------|--------|
| 480913   | SDV2415     | 0 voltage relay      | \$7.96 | \$7.75 | \$7.29 | \$6.99 |
| 480921   | SDV2415R    | Random voltage relay | 9.95   | 8.75   | 7.53   | 7.35   |
| 480892   | SDI2415     | 0 voltage relay      | 9.95   | 8.75   | 7.53   | 7.35   |
| 480905   | SDI2415R    | Random voltage relay | 8.09   | 7.65   | 7.29   | 7.09   |

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### Series 3 AC output Solid State

- Control voltage range: 3.5 – 8VDC
- Nominal input impedance: 200Ω
- Typical input current @ 5VDC
- Output operating voltage range: 20 – 140V<sub>RMS</sub>
- Load current range: 0.15 – 3.0A<sub>RMS</sub>
- Transient over voltage: 600Vpk
- Max. surge current: 55Apk
- Max. capacitance: 8pF
- Insulation resistance (min.) @ 500VDC: 10<sup>9</sup>Ω

Dielectric strength: 4000V<sub>RMS</sub>  
 UL/CSA/VDE approved

| Part No. | Product No. | Description                | 1       | 10      | 50      | 100     |
|----------|-------------|----------------------------|---------|---------|---------|---------|
| 480876   | S3012A      | AC output relay w/ snubber | \$21.19 | \$21.07 | \$19.99 | \$19.78 |

### Series T Quad Solid State

- Triac output
- Industry standard package
- Random turn-on, phase controllable
- Max. turn-on voltage: 4VDC
- Nominal input impedance: 330Ω
- Max. capacitance input/output: 10pF
- Insulation resistance (min.) @ 500VDC: 10<sup>9</sup>Ω

- Panel mount
- Dielectric strength: 2500V<sub>RMS</sub>
- Control voltage range: 4-15VDC
- Min. turn-off voltage: 1VDC
- Typical input current: 12mA @ 5VDC

| Part No. | Product No. | Op. Voltage (V <sub>RMS</sub> ) | Max. Load Current (A <sub>RMS</sub> ) | 1       | 10      | 50      | 100     |
|----------|-------------|---------------------------------|---------------------------------------|---------|---------|---------|---------|
| 481019   | TD2420Q-10  | 24-280                          | 0.15-20 ...                           | \$84.55 | \$81.59 | \$79.29 | \$72.09 |

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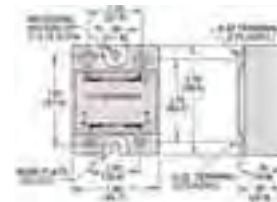
## Solid State Relays (Continued)

Lower \$\$\$

### Series T Solid State

- Zero voltage switching
- Internal snubber
- Dielectric strength 50/60Hz input/output/base: 4000V<sub>RMS</sub>
- Insulation resistance (min.) @ 500VDC: 10<sup>9</sup>Ω
- Max. capacitance input/output: 8pF
- Encapsulation: Thermally conductive epoxy
- Terminals: screws and saddle clamps
- 600V transient capability

- Panel mount
- Triac output



### DC control input specifications:

- Control voltage range: 3-32VDC
- Max. turn-on voltage: 3VDC
- Nominal input impedance: 1500Ω
- Typical input current: 3mA @ 5VDC; 20mA @ 28VDC
- Max. reverse voltage: -32VDC
- Min. turn-off voltage: 1VDC

### AC control input specifications:

- Control voltage range: 90-280V<sub>RMS</sub> (60Hz)
- Nominal input impedance: 60kΩ
- Typical input current: 20mA @ 120V<sub>RMS</sub>; 4mA @ 240V<sub>RMS</sub>
- Max. turn-on voltage: 90V<sub>RMS</sub>
- Min. turn-off voltage: 10V<sub>RMS</sub>

### DC Control

| Part No. | Product No. | Op. Voltage (V <sub>RMS</sub> ) | Max. Load Current (A <sub>RMS</sub> ) | 1       | 10      | 50      | 100     |
|----------|-------------|---------------------------------|---------------------------------------|---------|---------|---------|---------|
| 480972   | TD1210      | 24-140                          | 10                                    | \$26.49 | \$25.19 | \$24.09 | \$23.39 |
| 480981   | TD1210B     | 24-140                          | 10                                    | 31.99   | 29.99   | 27.59   | 25.99   |
| 480999   | TD1225      | 24-140                          | 25                                    | 27.59   | 26.29   | 25.09   | 24.19   |
| 481001   | TD2410      | 24-280                          | 10                                    | 27.29   | 26.59   | 26.09   | 23.78   |
| 481027   | TD2425      | 24-280                          | 250                                   | 27.49   | 26.29   | 25.99   | 25.49   |
| 481035   | TD2425B     | 24-280                          | 25                                    | 32.55   | 29.78   | 28.27   | 26.88   |

### AC Control

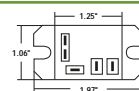
| Part No. | Product No. | Op. Voltage (V <sub>RMS</sub> ) | Max. Load Current (A <sub>RMS</sub> ) | 1       | 10      | 50      | 100     |
|----------|-------------|---------------------------------|---------------------------------------|---------|---------|---------|---------|
| 480956   | TA2410      | 24-280                          | 10                                    | \$28.39 | \$27.99 | \$27.59 | \$26.69 |
| 480964   | TA2425      | 24-280                          | 25                                    | 29.39   | 28.09   | 27.59   | 27.19   |

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## JAMECO ValuePro T9A Series Relay

### Low Cost PC Board or Panel Mount Only

- Contact form: SPDT
- Coil voltage: 12VDC
- Contact volt.: 240VAC/28VDC
- Terminal type: 0.1" disconnect (2); 0.25" disconnect (3)
- Contact current: 20A/10A
- 5-pin
- Coil: 155Ω



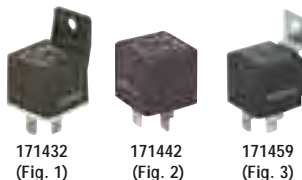
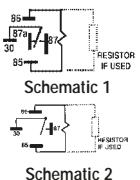
| Part No. | Cross Ref. No. | P & B Cross Ref. | Dimensions (LxWxH) | 1      | 10     | 50     | 100    |
|----------|----------------|------------------|--------------------|--------|--------|--------|--------|
| 137358   | 953-IC-12DM    | T9ASD52-12       | 2.0" x 1.6" x 1.8" | \$2.55 | \$2.45 | \$2.19 | \$1.75 |

## Potter & Brumfield Equivalent Plastic Enclosed Construction Relays

### VF4 Type

- Dielectric strength: 500VDC (between contact & coil)
- Operating temperature: -35°C to +85°C
- Contact current: 40A
- Coil voltage: 12VDC except P/N 171521 (5VDC)
- Normally open (NO), normally closed (NC)
- Dimensions: 1.1"L x 1.1"W x 1.0"H

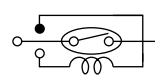
Blue Part No. = Limited Quantity Available



| Part No. | Cross Ref. No. | P&B Cross Ref. No. | Fig. | Contact Form | Coil Ohms | Contact Schematic | Contact Voltage | Pins | Pricing |      |      |      |
|----------|----------------|--------------------|------|--------------|-----------|-------------------|-----------------|------|---------|------|------|------|
| 171459   | LD1A-12F       | VF4-81F11S01       | 3    | SPST-NO      | 78        | 2                 | 14VDC           | 4    | 1       | 10   | 50   | 100  |
| 171442   | 961A-1A12D     | VF4-11F11          | 2    | SPST-NO      | 90        | 2                 | 14VDC           | 4    | 2.35    | 2.20 | 2.14 | 2.09 |
| 171521   | LD5F           | VF4-45D11          | 1    | SPDT         | 14        | 1                 | 5VDC            | 5    | 1.79    | 1.43 | 1.19 | 1.09 |
| 148582   | LD12F          | VF4-85F11          | 1    | SPDT         | 78        | 1                 | 12VDC           | 5    | 2.49    | 2.25 | 1.95 | 1.75 |
| 171432   | 961A-1C-12DM   | VF4-81F11          | 1    | SPDT         | 90        | 1                 | 12VDC           | 5    | 2.99    | 2.69 | 2.25 | 1.65 |

## Reed Type Relay

- 4-pin
- Manufacturer: Bestar
- Contact form: SPST-NO
- Coil voltage: 12VDC
- Coil: 1050Ω
- Contact voltage: 120VAC/60VDC
- Contact current: 0.1A
- Dielectric strength: 1500VDC (between contact and coil)
- Operating temperature: -30°C to +60°C
- Terminal type: PCB solder
- Dimensions: 1.0"L x .37"W x .38"H



| Part No. | Cross Ref. No. | 1      | 10     | 50     | 100    |
|----------|----------------|--------|--------|--------|--------|
| 111448   | RC108T         | \$1.15 | \$1.03 | \$0.93 | \$0.86 |

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## DC/AC and DC/DC Solid State Relays

- Screw terminal with hardware
- Photo isolation
- Metal mounting base
- Zero crossing



Quantity SAVE

Lower \$\$\$

164996  
(Fig. 1)153058  
(Fig. 2)162342  
(Fig. 3)192815  
(Fig. 4)176698  
(Fig. 5)127790  
(Fig. 6)176735  
(Fig. 7)187004  
(Fig. 8)

| Part No.                      | Product No.       | Mfr.     | Control Voltage | Type  | Contact Style | Contact Voltage | Contact Current | Pins | Fig. | Terminal Type  | Agency Approval | Size<br>L" x W" x H" | Pricing |        |        |        |
|-------------------------------|-------------------|----------|-----------------|-------|---------------|-----------------|-----------------|------|------|----------------|-----------------|----------------------|---------|--------|--------|--------|
|                               |                   |          |                 |       |               |                 |                 |      |      |                |                 |                      | 1       | 10     | 50     | 100    |
| Solid State Relays DC/AC Type |                   |          |                 |       |               |                 |                 |      |      |                |                 |                      |         |        |        |        |
| 164988                        | S101S02           | Sharp    | 1.2VDC@20mA     | DC/AC | SPST          | 125VAC          | 1.5A            | 4    | 1    | Solder Lead    | UL/CSA          | 0.9 x .16 x .63      | \$3.95  | \$3.49 | \$2.95 | \$2.25 |
| 164996                        | S202TA1           | Sharp    | 1.2VDC@20mA     | DC/AC | SPST          | 200VAC          | 2.0A            | 4    | 1    | Solder Lead    | UL/CSA          | 0.9 x .16 x .63      | 5.45    | 4.89   | 3.92   | 2.94   |
| 153058                        | KSD203AC2⊕        | COSMO    | 4-32VDC         | DC/AC | SPST          | 240VAC          | 3A              | 4    | 2    | Solder Lead    | —               | 1.4 x 0.3 x 0.9      | 9.95    | 8.95   | 7.95   | 7.25   |
| 162342                        | ESR51024-010⚡     | Excel    | 3-32VDC         | DC/AC | SPST          | 240VAC          | 10A             | 4    | 3    | Screw Terminal | UL              | 1.7 x 1.1 x 2.3      | 15.95   | 14.39  | 12.95  | 11.65  |
| 162369                        | ESR51024-025⚡     | Excel    | 3-32VDC         | DC/AC | SPST          | 240VAC          | 25A             | 4    | 3    | Screw Terminal | UL              | 1.7 x 1.1 x 2.3      | 21.95   | 19.79  | 17.79  | 16.05  |
| 162406                        | ESR51024-040⚡     | Excel    | 3-32VDC         | DC/AC | SPST          | 240VAC          | 40A             | 4    | 3    | Screw Terminal | UL              | 1.7 x 1.1 x 2.3      | 22.99   | 20.69  | 18.69  | 16.79  |
| 105081                        | 615-8500⚡         | Teledyne | 5-10VDC         | DC/AC | SPST          | 250VAC          | 10A             | 4    | 4    | Screw Terminal | UL              | 1.7 x 1.1 x 2.3      | 15.99   | 14.39  | 12.99  | 11.69  |
| 192815                        | KSD240AC8⊕        | COSMO    | 4-32VDC         | DC/AC | SPST          | 250VDC          | 40A             | 4    | 4    | Screw Terminal | —               | 1.8 x 0.6 x 2.3      | 20.05   | 18.03  | 16.23  | 14.61  |
| 175214                        | KB20C02A⊕         | Kyoto    | 3-32VDC         | DC/AC | SPST          | 280VAC          | 2A              | 4    | 5    | Solder Lead    | —               | 1.4 x 0.3 x 1.5      | 5.95    | 5.69   | 5.32   | 5.05   |
| 127790                        | D2W202F⊕          | Crydom   | 3-32VDC         | DC/AC | SPST          | 280VAC          | 2A              | 4    | 6    | Solder Lead    | UL/CSA          | 1.7 x 0.4 x 1.3      | 7.19    | 6.75   | 6.73   | 6.71   |
| 176698                        | KB20C06A⊕         | Kyoto    | 3-32VDC         | DC/AC | SPST          | 280VAC          | 6A              | 4    | 5    | Solder Lead    | —               | 1.4 x 0.3 x 0.9      | 9.99    | 8.99   | 7.99   | 7.19   |
| 176719                        | KD20C40AX⊕        | Kyoto    | 3-32VDC         | DC/AC | SPST          | 280VAC          | 40A             | 4    | 7    | Screw Terminal | —               | 1.7 x 0.9 x 2.3      | 19.99   | 17.99  | 16.19  | 14.59  |
| 176735                        | KD20C75AX⊕        | Kyoto    | 3-32VDC         | DC/AC | SPST          | 280VAC          | 75A             | 4    | 7    | Screw Terminal | —               | 1.7 x 0.9 x 2.3      | 44.39   | 39.95  | 31.96  | 23.97  |
| 186992                        | G3NA-210B-DC5-24⊕ | Omron    | 5-24VDC         | DC/AC | SPST          | 240VAC          | 10A             | 4    | 8    | Screw Terminal | UL/CSA          | 1.7 x 1.1 x 2.3      | 14.29   | 13.55  | 12.89  | 12.25  |
| 187004                        | G3NA-220B-DC5-24⊕ | Omron    | 5-24VDC         | DC/AC | SPST          | 240VAC          | 20A             | 4    | 8    | Screw Terminal | UL/CSA          | 1.7 x 1.1 x 2.3      | 19.95   | 17.95  | 15.59  | 13.24  |
| Solid State Relays DC/DC Type |                   |          |                 |       |               |                 |                 |      |      |                |                 |                      |         |        |        |        |
| 172591                        | KF0602D⊕          | Kyoto    | 3-32VDC         | DC/DC | SPST          | 60VDC           | 2A              | 4    | 5    | Solder Lead    | —               | 1.4 x 0.3 x 0.9      | \$9.95  | \$8.95 | \$7.95 | \$6.95 |
| 175222                        | KF0604D⊕          | Kyoto    | 3-32VDC         | DC/DC | SPST          | 60VDC           | 4A              | 4    | 5    | Solder Lead    | —               | 1.5 x 0.3 x 0.9      | 11.95   | 11.25  | 10.25  | 9.22   |
| 176647                        | KG1005D⊕          | Kyoto    | 3-32VDC         | DC/DC | SPST          | 120VDC          | 5A              | 4    | 7    | Screw Terminal | —               | 2.3 x 1.7 x 0.9      | 26.99   | 24.29  | 21.79  | 19.59  |
| 176655                        | KG1010D⊕          | Kyoto    | 3-32VDC         | DC/DC | SPST          | 120VDC          | 10A             | 4    | 7    | Screw Terminal | —               | 2.3 x 1.7 x 0.9      | 29.99   | 26.99  | 24.29  | 21.89  |

♣ Pull = Extra Savings

- Logic control levels
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- Moisture resistant
- Compatible with IC sockets
- Compact design/construction
- Excellent for PCB applications



106462



99901

## DIP Relays

Quantity SAVE

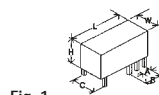


Fig. 1

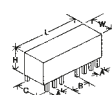


Fig. 2

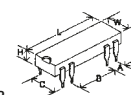
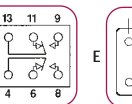
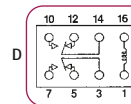
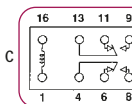
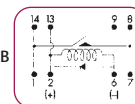
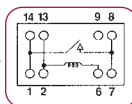


Fig. 3



| Part No. | Product No.   | Manufacturer      | Fig. | Contact Form | Coil Voltage (VDC) | Coil Ohms | Contact Voltage | Contact Current | Pins | Jameco Socket | Size<br>L x W x H (in.) | Leads<br>A x B x C (in.) | Pricing |        |        |        |
|----------|---------------|-------------------|------|--------------|--------------------|-----------|-----------------|-----------------|------|---------------|-------------------------|--------------------------|---------|--------|--------|--------|
|          |               |                   |      |              |                    |           |                 |                 |      |               |                         |                          | 1       | 10     | 50     | 100    |
| 106462   | 201A05        | Excel Cell Elect. | 3A   | SPST-NO      | 5VDC               | 500       | 100VDC          | 0.5A            | 8    | 37161         | .78 x .25 x .20         | .10 x .40 x .30          | \$2.15  | \$1.81 | \$1.52 | \$1.25 |
| 138431   | 2D1A05        | Excel Cell Elect. | 3B   | SPST-NO      | 5VDC               | 500       | 100VDC          | 0.5A            | 8    | 37161         | .77 x .30 x .22         | .10 x .40 x .30          | 2.29    | 1.95   | 1.65   | 1.34   |
| 215896   | OJE-SS-109LMF | OEG               | 1E   | SPST-NO      | 9VDC               | 400       | 250VAC/30VDC    | 3A/3A           | 4    | —             | .71 x .39 x .57         | .50 x .60 x .30          | 2.29    | 1.95   | 1.69   | 1.39   |
| 106472   | 201A12        | Excel Cell Elect. | 3A   | SPST-NO      | 12VDC              | 1000      | 100VDC          | 0.5A            | 8    | 37161         | .78 x .25 x .20         | .10 x .40 x .30          | 2.29    | 1.95   | 1.65   | 1.24   |
| 138449   | 2D1A1200      | Excel Cell Elect. | 3B   | SPST-NO      | 12VDC              | 1000      | 100VDC          | 0.5A            | 8    | 37161         | .77 x .30 x .22         | .10 x .40 x .30          | 2.25    | 1.95   | 1.75   | 1.49   |
| 139977   | RSB5S         | Shin Mei          | 1C   | DPDT         | 5VDC               | 125       | 120VAC/30VDC    | 1A/2A           | 8    | 37372         | .79 x .39 x .37         | .20 x .40 x .30          | 2.49    | 2.25   | 1.95   | 1.75   |
| 99311    | DS2Y-S-DC12V  | Aromat (NAIS)     | 1C   | DPDT         | 12VDC              | 720       | 110VAC/30VDC    | .3A/1A          | 8    | 37372         | .79 x .40 x .43         | .20 x .40 x .30          | 2.49    | 2.31   | 2.05   | 1.75   |
| 99901    | LX200D00      | Clare             | 1C   | DPDT         | 12VDC              | 720       | 125VAC/100VDC   | 2A              | 8    | 37372         | .79 x .40 x .30         | .20 x .40 x .30          | 6.95    | 6.25   | 5.63   | 4.49   |
| 99320    | MR62-245B     | NEC               | 1C   | DPDT         | 24VDC              | 1110      | 125VAC/100VDC   | 2A              | 8    | 37372         | .79 x .40 x .43         | .20 x .40 x .30          | 2.95    | 2.69   | 2.39   | 2.15   |
| 136549   | DS4E-M-DC5V   | Aromat            | 2D   | 4PDT         | 5VDC               | 62.5      | 125VAC/30VDC    | .6A/2A          | 14   | 112299        | 1.40 x .40 x .36        | .20 x .30 x .30          | 5.49    | 4.95   | 4.45   | 4.05   |
| 176313   | DS4E-M-DC12V  | Aromat            | 2D   | 4PDT         | 12VDC              | 360       | 125VAC/30VDC    | .6A/2A          | 14   | 112299        | 1.40 x .40 x .36        | .20 x .30 x .30          | 5.79    | 5.21   | 4.77   | 4.32   |

♣ Blue Part No. = Limited Quantity Available

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## Signal Relays

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## AGQ Series Low Signal Relay

| Part No. | Product No. | Fig. | Contact Form | Coil Volt. (VDC) | Coil Resist. (Ohms) | Coil Curr. (mA) | Contact Rating (A) | Pins | Dimensions (L" x W" x H") | Pricing |        |        |
|----------|-------------|------|--------------|------------------|---------------------|-----------------|--------------------|------|---------------------------|---------|--------|--------|
|          |             |      |              |                  |                     |                 |                    |      |                           | 1       | 25     | 50     |
| 760341   | AGQ2004H    | 1A   | DPDT         | 4.5              | 145                 | 31              | 1.0 0.3            | 8    | 0.42 x 0.28 x 0.21        | \$2.99  | \$2.95 | \$2.67 |

## AGQ Series Low Signal Relays (SMD)

|        |           |    |      |    |      |      |         |   |                    |        |        |        |
|--------|-----------|----|------|----|------|------|---------|---|--------------------|--------|--------|--------|
| 760368 | AGQ200A03 | 2B | DPDT | 3  | 64.2 | 46.7 | 1.0 0.3 | 8 | 0.42 x 0.28 x 0.21 | \$4.59 | \$4.25 | \$4.09 |
| 842540 | AGQ200A12 | 2B | DPDT | 12 | 1028 | 11.7 | 1.0 0.3 | 8 | 0.42 x 0.28 x 0.21 | 3.15   | 3.09   | 2.77   |

## AGN Series Compact Low Signal Relay

|        |          |    |      |     |     |    |         |   |                    |        |        |        |
|--------|----------|----|------|-----|-----|----|---------|---|--------------------|--------|--------|--------|
| 842494 | AGN2004H | 3A | DPDT | 4.5 | 145 | 31 | 1.0 0.3 | 8 | 0.42 x 0.22 x 0.35 | \$2.59 | \$2.55 | \$2.48 |
|--------|----------|----|------|-----|-----|----|---------|---|--------------------|--------|--------|--------|

## AGN Series Compact Low Signal Relays (SMD)

|        |           |    |      |     |      |      |         |   |                    |        |        |        |
|--------|-----------|----|------|-----|------|------|---------|---|--------------------|--------|--------|--------|
| 760325 | AGN200A03 | 4B | DPDT | 3   | 64.2 | 46.7 | 1.0 0.3 | 8 | 0.42 x 0.22 x 0.35 | \$3.39 | \$3.12 | \$2.77 |
| 842523 | AGN200A4H | 4B | DPDT | 4.5 | 145  | 31   | 1.0 0.3 | 8 | 0.42 x 0.22 x 0.35 | 2.89   | 2.75   | 2.61   |

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product

♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.

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## Signal Relays (Continued)

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### DS Series Low Signal Relays (High Sensitivity & Standard Coils)

| Part No. | Product No.    | Fig. | Contact Form | Coil Volt. (VDC) | Coil Resist. (Ohms) | Coil Curr. (mA) | Contact Rating (A) |        | Pins | Dimensions (L" x W" x H") | Pricing |        |        |
|----------|----------------|------|--------------|------------------|---------------------|-----------------|--------------------|--------|------|---------------------------|---------|--------|--------|
|          |                |      |              |                  |                     |                 | 30VDC              | 125VAC |      |                           | 1       | 25     | 50     |
| 760616   | DS1E-S-DC5V    | 5C   | SPDT         | 5                | 125                 | —               | 2.0                | 2.0    | 5    | 0.59 x 0.39 x 0.37        | \$5.95  | \$5.85 | \$5.19 |
| 760595   | DS1E-S-DC12V   | 5C   | SPDT         | 12               | 720                 | —               | 2.0                | 2.0    | 5    | 0.59 x 0.39 x 0.37        | 5.95    | 5.85   | 5.19   |
| 842953   | DS2E-S-DC5V    | 6D   | DPDT         | 5                | 125                 | 40              | 2.0                | 2.0    | 8    | 0.79 x 0.39 x 0.37        | 3.69    | 3.39   | 3.19   |
| 760691   | DS2E-S-DC9V    | 6D   | DPDT         | 9                | 405                 | —               | 2.0                | 2.0    | 8    | 0.79 x 0.39 x 0.37        | 4.09    | 3.78   | 3.35   |
| 842902   | DS2E-S-DC12V   | 6D   | DPDT         | 12               | 720                 | 16.6            | 2.0                | 2.0    | 8    | 0.79 x 0.39 x 0.37        | 3.69    | 3.39   | 3.19   |
| 842937   | DS2E-S-DC24V   | 6D   | DPDT         | 24               | 2880                | 8.3             | 2.0                | 2.0    | 8    | 0.79 x 0.39 x 0.37        | 3.69    | 3.39   | 3.19   |
| 760675   | DS2E-S-DC48V   | 6D   | DPDT         | 48               | 11520               | 4.1             | 2.0                | 2.0    | 8    | 0.79 x 0.39 x 0.37        | 4.95    | 4.89   | 4.35   |
| 843041   | DS4E-S-DC12V   | 7E   | 4PDT         | 12               | 720                 | —               | 2.0                | 2.0    | 14   | 1.39 x 0.39 x 0.37        | 7.09    | 6.79   | 6.19   |
| 842734   | DS1E-M-DC12V   | 6C   | SPDT         | 12               | 360                 | —               | 2.0                | 2.0    | 5    | 0.59 x 0.39 x 0.37        | 4.19    | 3.79   | 3.47   |
| 842769   | DS1E-M-DC24V   | 6C   | SPDT         | 24               | 1440                | —               | 2.0                | 2.0    | 5    | 0.59 x 0.39 x 0.37        | 4.19    | 3.99   | 3.79   |
| 842849   | DS2E-M-DC5V    | 6D   | DPDT         | 5                | 62.5                | 80              | 2.0                | 2.0    | 8    | 0.79 x 0.39 x 0.37        | 2.95    | 2.89   | 2.58   |
| 842793   | DS2E-M-DC12V   | 6D   | DPDT         | 12               | 360                 | 33.2            | 2.0                | 2.0    | 8    | 0.79 x 0.39 x 0.37        | 2.95    | 2.89   | 2.58   |
| 760659   | DS2E-M-DC12V   | 6D   | DPDT         | 12               | 360                 | 33.2            | 2.0                | 2.0    | 8    | 0.79 x 0.39 x 0.37        | 2.95    | 2.89   | 2.58   |
| 760632   | DS2E-M-DC12V-R | 6D   | DPDT         | 12               | 360                 | 33.2            | 2.0                | 2.0    | 8    | 0.79 x 0.39 x 0.37        | 2.95    | 2.89   | 2.58   |
| 842814   | DS2E-M-DC24V   | 6D   | DPDT         | 24               | 1440                | 16.6            | 2.0                | 2.0    | 8    | 0.79 x 0.39 x 0.37        | 2.95    | 2.89   | 2.58   |

\*Reverse polarity

### TQ Series Low Signal Relays

|        |            |     |      |     |      |      |     |     |    |                    |        |        |        |
|--------|------------|-----|------|-----|------|------|-----|-----|----|--------------------|--------|--------|--------|
| 761563 | TQ2-3V     | 8F  | DPDT | 3   | 64.3 | 46.7 | 1.0 | 0.5 | 10 | 0.55 x 0.35 x 0.20 | \$2.49 | \$2.29 | \$2.05 |
| 761580 | TQ2-4.5V   | 8F  | DPDT | 4.5 | 144  | 31.1 | 1.0 | 0.5 | 10 | 0.55 x 0.35 x 0.20 | 2.39   | 2.29   | 2.05   |
| 761601 | TQ2-5V     | 8F  | DPDT | 5   | 178  | 28.1 | 1.0 | 0.5 | 10 | 0.55 x 0.35 x 0.20 | 2.45   | 2.29   | 2.15   |
| 761627 | TQ2-6V     | 8F  | DPDT | 6   | 257  | 23.3 | 1.0 | 0.5 | 10 | 0.55 x 0.35 x 0.20 | 2.65   | 2.45   | 2.15   |
| 761643 | TQ2-9V     | 8F  | DPDT | 9   | 579  | 15.5 | 1.0 | 0.5 | 10 | 0.55 x 0.35 x 0.20 | 2.49   | 2.29   | 2.05   |
| 843471 | TQ2-24V    | 8F  | DPDT | 24  | 2880 | 8.3  | 1.0 | 0.5 | 10 | 0.55 x 0.35 x 0.20 | 2.85   | 2.75   | 2.45   |
| 761766 | TQ2SA-3V   | 9G  | DPDT | 3   | 64.3 | 46.7 | 2.0 | 0.5 | 10 | 0.55 x 0.35 x 0.20 | 2.85   | 2.65   | 2.35   |
| 761782 | TQ2SA-4.5V | 9G  | DPDT | 4.5 | 145  | 31.3 | 2.0 | 0.5 | 10 | 0.55 x 0.35 x 0.20 | 2.85   | 2.65   | 2.35   |
| 843542 | TQ2SA-5V   | 9G  | DPDT | 5   | 178  | 28.1 | 2.0 | 0.5 | 10 | 0.55 x 0.35 x 0.20 | 2.85   | 2.59   | 2.35   |
| 843500 | TQ2SA-12V  | 9G  | DPDT | 12  | 1028 | 11.7 | 2.0 | 0.5 | 10 | 0.55 x 0.35 x 0.20 | 2.69   | 2.59   | 2.35   |
| 843526 | TQ2SA-24V  | 9G  | DPDT | 24  | 2880 | 8.3  | 2.0 | 0.5 | 10 | 0.55 x 0.35 x 0.20 | 2.59   | 2.55   | 2.49   |
| 761803 | TQSS-5V    | 10G | DPDT | 5   | 178  | 28.1 | 2.0 | 0.5 | 10 | 0.55 x 0.35 x 0.20 | 2.75   | 2.49   | 2.29   |

### TQ Series Dual Coil Latching Relays

|        |             |    |      |     |       |      |     |     |    |                    |        |        |        |
|--------|-------------|----|------|-----|-------|------|-----|-----|----|--------------------|--------|--------|--------|
| 761707 | TQ2-L2-3V   | 8H | DPDT | 3   | 45    | 66.7 | 1.0 | 0.5 | 10 | 0.55 x 0.35 x 0.20 | \$3.15 | \$2.89 | \$2.55 |
| 761723 | TQ2-L2-4.5V | 8H | DPDT | 4.5 | 101.2 | 44.4 | 1.0 | 0.5 | 10 | 0.55 x 0.35 x 0.20 | 3.15   | 2.89   | 2.55   |
| 761660 | TQ2-L2-5V   | 8H | DPDT | 5   | 125   | 40.0 | 1.0 | 0.5 | 10 | 0.55 x 0.35 x 0.20 | 2.99   | 2.75   | 2.45   |
| 761740 | TQ2-L2-9V   | 8H | DPDT | 9   | 405   | 22.2 | 1.0 | 0.5 | 10 | 0.55 x 0.35 x 0.20 | 3.15   | 2.89   | 2.55   |
| 761686 | TQ2-L2-24V  | 8H | DPDT | 24  | 1920  | 12.5 | 1.0 | 0.5 | 10 | 0.55 x 0.35 x 0.20 | 2.85   | 2.75   | 2.69   |
| 843569 | TQ2SA-L2-5V | 9I | DPDT | 5   | 178   | 28.1 | 2.0 | 0.5 | 10 | 0.55 x 0.35 x 0.20 | 3.35   | 3.25   | 2.99   |

### TX Series Low Signal Relays

|        |            |     |      |     |      |      |     |   |    |                    |        |        |        |
|--------|------------|-----|------|-----|------|------|-----|---|----|--------------------|--------|--------|--------|
| 761846 | TX2-4.5V   | 11J | DPDT | 4.5 | 145  | 31.0 | 2.0 | — | 8  | 0.59 x 0.29 x 0.32 | \$1.69 | \$1.59 | \$1.57 |
| 843585 | TX2-24V    | 11J | DPDT | 24  | 4114 | 5.8  | 2.0 | — | 8  | 0.59 x 0.29 x 0.32 | 3.25   | 2.99   | 2.65   |
| 761820 | TX2-24V    | 11J | DPDT | 24  | 4114 | 5.8  | 2.0 | — | 8  | 0.59 x 0.29 x 0.32 | 3.09   | 2.99   | 2.69   |
| 761854 | TX2-48V    | 11J | DPDT | 48  | 8533 | 5.6  | 2.0 | — | 8  | 0.59 x 0.29 x 0.32 | 4.25   | 3.89   | 3.49   |
| 761871 | TX2-L2-5V  | 12K | DPDT | 3   | 64.3 | 46.7 | 1.0 | — | 10 | 0.59 x 0.29 x 0.32 | 3.25   | 3.19   | 2.85   |
| 843649 | TX2SA-5V   | 13L | DPDT | 5   | 178  | 28.1 | 2.0 | — | 8  | 0.59 x 0.29 x 0.32 | 2.69   | 2.59   | 2.35   |
| 843614 | TX2SA-12V  | 13L | DPDT | 12  | 1028 | 11.7 | 2.0 | — | 8  | 0.59 x 0.29 x 0.32 | 2.85   | 2.65   | 2.35   |
| 761897 | TX2SA-24V  | 13L | DPDT | 24  | 4114 | 5.8  | 2.0 | — | 8  | 0.59 x 0.29 x 0.32 | 3.35   | 3.09   | 2.75   |
| 761977 | TX2SL-4.5V | 13L | DPDT | 4.5 | 145  | 31.0 | 2.0 | — | 8  | 0.59 x 0.29 x 0.32 | 2.75   | 2.59   | 2.45   |
| 761951 | TX2SL-24V  | 13L | DPDT | 24  | 4114 | 5.8  | 2.0 | — | 8  | 0.59 x 0.29 x 0.32 | 3.49   | 3.09   | 2.89   |

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## Power Relays

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### HC Series Miniature Power Relays

| Part No. | Product No.  | Fig. | Contact Form | Coil Volt. (VDC) | Coil Resist. (Ohms) | Coil Curr. (mA) | Contact Rating (A) |  | Pins | Dimensions (L" x W" x H") | Pricing |        |        |
|----------|--------------|------|--------------|------------------|---------------------|-----------------|--------------------|--|------|---------------------------|---------|--------|--------|
|          |              |      |              |                  |                     |                 | 125VAC             |  |      |                           | 1       | 25     | 50     |
| 760798   | HC2-H-DC12V  | 14M  | DPDT         | 12               | 160                 | 75.0            | 7.0                |  | 8    | 1.07 x 0.82 x 1.38        | \$7.85  | \$7.19 | \$6.39 |
| 760878   | HC4-H-DC12V  | 14N  | 4PDT         | 12               | 160                 | 75.0            | 5.0                |  | 14   | 1.07 x 0.82 x 1.38        | 12.69   | 11.55  | 10.59  |
| 760851   | HC4-H-AC24V  | 14N  | 4PDT         | 24VAC            | —                   | 50.0            | 5.0                |  | 14   | 1.07 x 0.82 x 1.38        | 8.99    | 8.55   | 8.12   |
| 760819   | HC2-HP-DC12V | 14M  | DPDT         | 12               | 160                 | 75.0            | 7.0                |  | 8    | 1.07 x 0.82 x 1.38        | 7.85    | 7.59   | 7.29   |
| 760835   | HC2-HP-DC24V | 14M  | DPDT         | 24               | 650                 | 37.0            | 7.0                |  | 8    | 1.07 x 0.82 x 1.38        | 7.79    | 7.39   | 6.99   |
| 760894   | HC4-HP-DC12V | 14N  | 4PDT         | 12               | 160                 | 75.0            | 5.0                |  | 14   | 1.07 x 0.82 x 1.38        | 8.95    | 8.19   | 7.45   |
| 760915   | HC4-HP-DC24V | 14N  | 4PDT         | 24               | 650                 | 37.0            | 5.0                |  | 14   | 1.07 x 0.82 x 1.38        | 7.59    | 6.79   | 6.44   |

### HL Series Space Saving Power Relays

|        |               |     |      |        |     |           |         |  |   |                    |        |        |        |
|--------|---------------|-----|------|--------|-----|-----------|---------|--|---|--------------------|--------|--------|--------|
| 760931 | HL1-HTM-DC24V | 15O | SPDT | 24     | 650 | 37.0      | 15.0    |  | 5 | 1.69 x 0.81 x 1.35 | \$7.19 | \$6.83 | \$6.49 |
| 760958 | HL2-HP-AC115V | 15P | DPDT | 115VAC | —   | 10.9/11.9 | 10A@250 |  | 8 | 1.07 x 0.82 x 1.39 | 9.65   | 9.15   | 8.69   |
| 760966 | HL2-HP-DC12V  | 15P | DPDT | 12     | 160 | 75        | 10A@250 |  | 8 | 1.07 x 0.82 x 1.39 | 8.39   | 7.95   | 7.55   |
| 760991 | HL2-HP-DC24V  | 15P | DPDT | 24     | 650 | 37        | 10A@250 |  | 8 | 1.07 x 0.82 x 1.39 | 8.39   | 7.95   | 7.55   |

1 Plug-in 2 PCB terminal 3 Top-mount

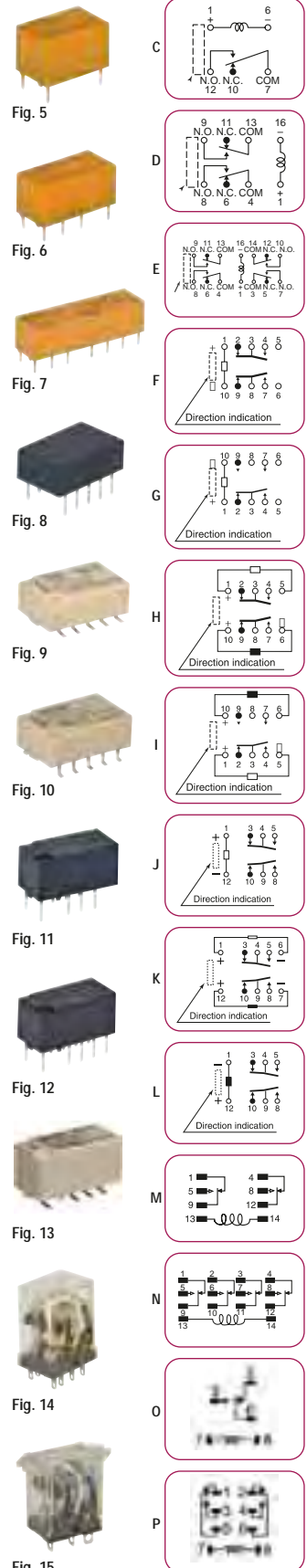
♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product ♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

Color Code Legend  
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199



Electromech

**Panasonic**

## Power Relays (Continued)

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### JQ Series High Noise Immunity Power Relays

| Part No. | Product No. | Fig. | Contact Form | Coil Volt. (VDC) | Coil Resist. (Ohms) | Coil Curr. (mA) | Contact Rating (A) |        | Pins | Dimensions (L" x W" x H") | Pricing |        |        |
|----------|-------------|------|--------------|------------------|---------------------|-----------------|--------------------|--------|------|---------------------------|---------|--------|--------|
|          |             |      |              |                  |                     |                 | 30VDC              | 125VAC |      |                           | 1       | 25     | 50     |
| 761037   | JQ1-5V      | 16Q  | SPDT         | 5                | 62.5                | 80.0            | 5.0                | 5.0    | 5    | 0.79 x 0.39 x 0.61        | \$2.89  | \$2.85 | \$2.55 |
| 761011   | JQ1-12V     | 16Q  | SPDT         | 12               | 360                 | 33.3            | 5.0                | 5.0    | 5    | 0.79 x 0.39 x 0.61        | 2.89    | 2.85   | 2.55   |
| 761045   | JQ1AP-12V   | 16R  | SPST-NO      | 12               | 720                 | 16.7            | 10.0               | 5.0    | 4    | 0.79 x 0.39 x 0.61        | 2.59    | 2.47   | 2.35   |
| 761061   | JQ1AP-24V   | 16R  | SPST-NO      | 24               | 2880                | 8.3             | 10.0               | 5.0    | 4    | 0.79 x 0.39 x 0.61        | 2.89    | 2.85   | 2.55   |

### JS Series Power Relays

|        |          |     |         |    |      |      |   |      |   |                    |        |        |        |
|--------|----------|-----|---------|----|------|------|---|------|---|--------------------|--------|--------|--------|
| 843155 | JS1-5V   | 17S | SPDT    | 5  | 72   | 69.4 | — | 10.0 | 5 | 0.87 x 0.63 x 0.63 | \$1.09 | \$0.99 | \$0.89 |
| 843121 | JS1-24V  | 17S | SPDT    | 24 | 1600 | 15.0 | — | 10.0 | 5 | 0.87 x 0.63 x 0.63 | 1.19   | 1.09   | .99    |
| 761088 | JS1-48V  | 17S | SPDT    | 48 | 6400 | 7.5  | — | 10.0 | 5 | 0.87 x 0.63 x 0.63 | 1.45   | 1.35   | 1.19   |
| 761125 | JS1A-5V  | 17T | SPST-NO | 5  | 72   | 69.4 | — | 10.0 | 5 | 0.87 x 0.63 x 0.63 | 1.05   | .99    | .89    |
| 761109 | JS1A-12V | 17T | SPST-NO | 12 | 400  | 30.0 | — | 10.0 | 5 | 0.87 x 0.63 x 0.63 | .85    | .82    | .79    |
| 843171 | JS1A-24V | 17T | SPST-NO | 24 | 1600 | 15.0 | — | 10.0 | 5 | 0.87 x 0.63 x 0.63 | 1.05   | .99    | .89    |

### JTN Series Economical Relays (for Appliance & Automotive)

|        |                    |     |         |    |     |   |   |         |   |                    |        |        |        |
|--------|--------------------|-----|---------|----|-----|---|---|---------|---|--------------------|--------|--------|--------|
| 761141 | JTN1AS-PA-F-DC12V  | 18U | SPST-NO | 12 | 180 | — | — | 30A@277 | 4 | 1.26 x 1.06 x 0.80 | \$2.79 | \$2.69 | \$2.39 |
| 761168 | JTN1AS-PA-F-DC24V  | 18U | SPST-NO | 24 | 720 | — | — | 30A@277 | 4 | 1.26 x 1.06 x 0.80 | 2.85   | 2.59   | 2.45   |
| 761184 | JTN1AS-TMP-F-DC12V | 19V | SPST-NO | 12 | 180 | — | — | 30A@277 | — | 1.27 x 1.08 x 1.10 | 2.45   | 2.39   | 2.32   |
| 761213 | JTN1S-PA-F-DC24V   | 18U | SPDT    | 24 | 720 | — | — | 30A@277 | 4 | 1.26 x 1.06 x 0.80 | 2.59   | 2.55   | 2.49   |

### JW Series Power Relays

|        |                 |     |         |    |      |     |      |         |   |                    |        |        |        |
|--------|-----------------|-----|---------|----|------|-----|------|---------|---|--------------------|--------|--------|--------|
| 761310 | JW1FSN-DC5V     | 20W | SPDT    | 5  | 47   | 106 | 10.0 | 10A@250 | 5 | 1.13 x 0.50 x 0.79 | \$1.89 | \$1.79 | \$1.59 |
| 843201 | JW1FSN-DC24V    | 20W | SPDT    | 24 | 1100 | 22  | 10.0 | 10A@250 | 5 | 1.13 x 0.50 x 0.79 | 1.99   | 1.89   | 1.67   |
| 761299 | JW1FSN-B-DC24V  | 20W | SPDT    | 24 | 1100 | 22  | 10.0 | 10A@250 | 5 | 1.13 x 0.50 x 0.79 | 2.05   | 1.89   | 1.69   |
| 761256 | JW1AFSN-DC12V   | 20W | SPST-NO | 12 | 270  | 44  | 10.0 | 10A@250 | 5 | 1.13 x 0.50 x 0.79 | 1.85   | 1.68   | 1.49   |
| 761230 | JW1AFSN-B-DC12V | 20W | SPST-NO | 12 | 270  | 44  | 10.0 | 10A@250 | 5 | 1.13 x 0.50 x 0.79 | 1.99   | 1.79   | 1.59   |
| 761336 | JW2SN-DC5V      | 21X | DPDT    | 5  | 47   | 106 | 5.0  | 5A@250  | 6 | 1.13 x 0.50 x 0.79 | 2.15   | 1.99   | 1.79   |
| 843235 | JW2SN-DC12V     | 21X | DPDT    | 12 | 270  | 44  | 5.0  | 5A@250  | 6 | 1.13 x 0.50 x 0.79 | 1.35   | 1.34   | 1.33   |
| 843260 | JW2SN-DC24V     | 21X | DPDT    | 24 | 1100 | 22  | 5.0  | 5A@250  | 6 | 1.13 x 0.50 x 0.79 | 2.29   | 2.15   | 1.89   |
| 843294 | JW2SN-DC48V     | 21X | DPDT    | 48 | 4400 | 11  | 5.0  | 5A@250  | 6 | 1.13 x 0.50 x 0.79 | 2.39   | 2.19   | 1.99   |

4 High caps 5 Class B insulation This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

## Small High-Current PC Mount Relays

While these small, low-cost relays are designed primarily for the appliance industry and the heating, air conditioning and ventilation markets, they are also well suited for automotive load management and other applications.

- Mechanical life expectancy: 10 million operations
- Electrical life expectancy: 100,000 operations at rated loads
- Dielectric strength: 1500Vrms (between contact and coil)

129349: Immersion cleanable, plastic sealed case

144186: For use with universal relay card (P/N 128910, pg 319)

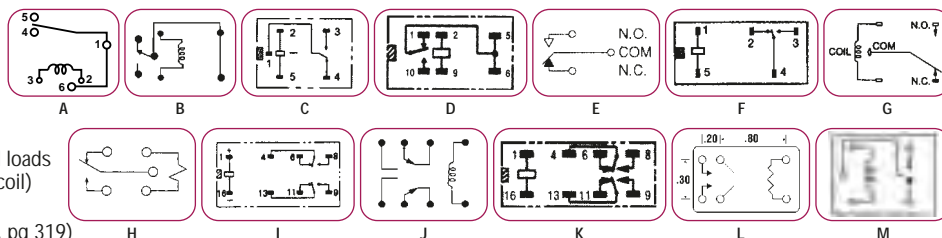


Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10

| Part No. | Cross Ref. No.  | Manufacturer  | Potter & Brumfield Cross Reference | Fig. | Contact Form | Coil Voltage | Coil (Ohms) | Contact Voltage | Contact Current | Pins | L x W x H (in.)   | Pricing |        |        |        |
|----------|-----------------|---------------|------------------------------------|------|--------------|--------------|-------------|-----------------|-----------------|------|-------------------|---------|--------|--------|--------|
|          |                 |               |                                    |      |              |              |             |                 |                 |      |                   | 1       | 10     | 50     | 100    |
| 145752   | L90A-12W        | Rayex         | T90S1D12-12                        | 1A   | SPST         | 12VDC        | 155         | 240VAC          | 30A             | 5    | 1.2 x 1.0 x .77   | \$2.45  | \$2.10 | \$1.85 | \$1.49 |
| 134949   | L90-5W          | Rayex         | T90S5D12-5                         | 1A   | SPDT         | 5VDC         | 27          | 240VAC/28VDC    | 20A             | 6    | 1.3 x 1.1 x .80   | 2.49    | 2.15   | 1.93   | 1.65   |
| 174450   | LU-5            | Rayex         | T81H5D215                          | 2B   | SPDT         | 5VDC         | 125         | 120VAC/24VDC    | 1A/2A           | 6    | .60 x .40 x .45   | 1.79    | 1.66   | 1.55   | 1.49   |
| 187151   | G5LE-1DC5       | Omron         | —                                  | 3C   | SPDT         | 5VDC         | 63          | 120VAC/30VDC    | 10A/8A          | 5    | .90 x .65 x .75   | 1.49    | 1.30   | 1.15   | 1.09   |
| 187240   | G5V-1-DC5       | Omron         | —                                  | 4D   | SPDT         | 5VDC         | 166.7       | 125VAC/24VDC    | .5A/1A          | 6    | .50 x .30 x .40   | 2.05    | 1.79   | 1.59   | 1.50   |
| 664309   | JW1FSN-DC12V    | Nais (Aromat) | —                                  | 5E   | SPDT         | 12VDC        | 270         | 250VAC/30VDC    | 10              | 5    | 1.13 x .51 x .79  | 1.89    | 1.70   | 1.49   | 1.29   |
| 186669   | G2R-14-DC12     | Omron         | —                                  | 6F   | SPDT         | 12VDC        | 275         | 250VAC/30VDC    | 10A             | 5    | 1.2 x .51 x 1.0   | 2.99    | 2.85   | 2.69   | 2.67   |
| 172937   | JS1-12V         | Nais (Aromat) | T72M5D121-12                       | 7G   | SPDT         | 12VDC        | 400         | 125VAC/24VDC    | 10A/5A          | 5    | .85 x .62 x .63   | 1.09    | .99    | .89    | .75    |
| 144186   | JZC-22F         | Velleman      | VR15M121C                          | 2H   | SPDT         | 12VDC        | 337         | 120VAC/28VDC    | 15A             | 5    | .80 x .64 x .80   | 3.79    | 3.39   | 3.05   | 2.75   |
| 174432   | LEG-12F         | Rayex         | T7C5SD12                           | 2H   | SPDT         | 12VDC        | 400         | 120VAC/24VDC    | 15A             | 5    | .76 x .62 x .60   | 1.49    | 1.29   | 1.19   | 1.09   |
| 184461   | G5V-1-DC12      | Omron         | —                                  | 4D   | SPDT         | 12VDC        | 960         | 125VAC/24VDC    | .5A/1A          | 6    | .50 x .30 x .40   | 2.39    | 1.93   | 1.71   | 1.63   |
| 187282   | G6A-234PSTUSD5C | Omron         | —                                  | 8I   | DPDT         | 5VDC         | 125         | 125VAC/30VDC    | .3A/1A          | 8    | .80 x .33 x .40   | 3.85    | 3.66   | 3.49   | 3.40   |
| 174377   | LM2-12D         | Rayex         | RKA5DZ12                           | 9J   | DPDT         | 12VDC        | 270         | 250VAC/30VDC    | 5A              | 8    | 1.2 x .48 x 1.0   | 2.49    | 2.25   | 1.95   | 1.75   |
| 187258   | G5V-2-DC12      | Omron         | —                                  | 10K  | DPDT         | 12VDC        | 288         | 125VAC/30VDC    | .5A/2A          | 8    | .81 x .40 x .45   | 2.49    | 2.28   | 2.02   | 1.82   |
| 215909   | RKA-7DZ-12      | P & B         | —                                  | 6L   | DPST-NO      | 12VDC        | 270         | 250VAC/24VDC    | 5A/5A           | 6    | 1.16 x .57 x 1.05 | 2.29    | 1.95   | 1.69   | 1.39   |
| 454563   | KLTIIC12DC9     | Hasco         | —                                  | 2M   | SPDT         | 9VDC         | 225         | 120VAC/28VDC    | 12              | 5    | 0.73 x .59 x 0.61 | 2.29    | 1.95   | 1.69   | 1.39   |

\*Manufacturer may vary

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



## 24VDC Liquid Level Sensor

Combine the control box and sensor to activate a water valve. When sensor is triggered by a tank in either full or empty condition, it will trigger an output status change.

- Empty type
- Diameter: 1.0"
- Overall Length: 3.9"
- Travel Distance: 2.0"

Lower \$\$\$



| Part No. | Description       | 1      | 10     | 25     |
|----------|-------------------|--------|--------|--------|
| 176250   | Sensor empty type | \$7.39 | \$6.28 | \$5.29 |



## -1.1 to 2.5 PSI Pressure Sensor

- Measurable pressure range: -1.1 to 2.5 PSI
- Maximum load pressure: twice rated pressure
- Operating volt.: 5V @ <10mA
- Maximum excitation voltage: 8V
- Pressure type: gauge pressure
- Pressure media: non-corrosive gas
- On-chip amplification and temp. compensations
- Pre-calibration of offset voltage and span
- 1/8" diameter tubing is applicable
- Size: .55"L x .47"W x .20"H



SALE

| Part No. | Product No.      | 1       | 10      | 100     |
|----------|------------------|---------|---------|---------|
| 196103   | XFPN-025-KPGRNW1 | \$24.95 | \$22.45 | \$20.21 |

## 0 to 1.45 PSI Pressure Sensor

- Typical full scale span @ 35mV: 0-10kPa (0-1.45 PSI)
- Maximum pressure (P<sub>MAX</sub>): 75kPa (10.875 PSI)
- Operating volt. (typical): 3VDC @ 6mA
- Applications: air movement control, level indicators, leak detection, robotics and industrial controls
- Size: 0.7"Dia. x 0.78"Thick (with nozzle)



| Part No. | Product No. | 1      | 10     | 100    |
|----------|-------------|--------|--------|--------|
| 218827   | MPX10GS     | \$8.99 | \$7.99 | \$7.19 |

## Making Sense of Sensors

Choosing proximity switch sensors may seem like a trivial process... but the implications can be crucial to your product's success.



For instance, the maximum distance spec'd between the magnet and sensor may significantly affect a product's performance. Too great a distance and a burglar can defeat an alarm trigger. Too little a distance and the installer cannot adequately position the components.

Make sure you fully understand your application, the users and those that benefit from the product. Then make sure you spec your equipment to best meet their needs. At the end of the day, your business will benefit.

## Practical Practices

Money Saving Tips for the Engineer

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



## Inductive Proximity Switch Sensors

Cylindrical and Square Styles

- Operating voltage range: 10-30VDC
- Nominal operating voltage: 12VDC
- Normally open output
- Switching frequency: 1.5kHz
- Current consumption: 10mA max.
- Sensing target: inductive type – magnetic metal
- Sensing distance: ±10% (tin)
- Short circuit protected
- Pre-tinned pigtail

Quantity SAVE



421147



421155



421163



421171



421180



421198



421227



421235



421294

| Part No. | Product No. | Output Circuit | Effec. Dist. (Iron) | Standard Target (Iron) (mm) | Size (L" x Dia.)  | Mounting Hole (in.) | Pricing |        |        |
|----------|-------------|----------------|---------------------|-----------------------------|-------------------|---------------------|---------|--------|--------|
|          |             |                |                     |                             |                   |                     | 1       | 10     | 25     |
| 155547   | S18-05N-1   | NPN            | 0-4.0mm             | 18 x 18 x 1                 | 1.4"Lx1.4"Wx0.7"H | 0.112               | \$9.95  | \$8.95 | \$7.95 |
| 167020   | TS12-02N-1  | NPN            | 0-1.6mm             | 12 x 12 x 1                 | 1.8" x 0.46"      | 0.46                | 20.65   | 18.61  | 16.75  |
| 248858   | TS12-02P-1  | PNP            | 0-1.6mm             | 12 x 12 x 1                 | 1.8" x 0.46"      | 0.46                | 19.99   | 17.99  | 15.99  |
| 155571   | TS18-05N-1  | NPN            | 0-4.0mm             | 18 x 18 x 1                 | 1.6" x 0.70"      | 0.70                | 24.95   | 21.21  | 15.91  |
| 421147   | CS12-02N-1  | NPN            | 0-1.6mm             | 12 x 12 x 1                 | 2.2" x 0.83"      | 0.67                | 24.69   | 20.99  | 15.74  |
| 421155   | CS12-05N-1  | NPN            | 0-0.4mm             | 12 x 12 x 1                 | 2.4" x 0.88"      | 0.67                | 25.25   | 21.46  | 16.10  |
| 421163   | CS18-05N-1  | NPN            | 0-0.4mm             | 18 x 18 x 1                 | 2.1" x 1.10"      | 0.95                | 30.95   | 26.31  | 19.73  |
| 421171   | CS18-08N-1  | NPN            | 0-6.4mm             | 18 x 18 x 1                 | 2.4" x 1.10"      | 0.95                | 31.29   | 26.60  | 19.95  |
| 421180   | CS30-10N-1  | NPN            | 0-12mm              | 30 x 30 x 1                 | 2.3" x 1.40"      | 1.40                | 34.95   | 29.71  | 22.28  |
| 421198   | CS30-15N-1  | —              | 0-12mm              | 30 x 30 x 1                 | 2.7" x 1.40"      | 1.40                | 42.09   | 35.78  | 26.84  |
| 421201   | TS12-05N-1  | NPN            | 0-4.0mm             | 12 x 12 x 1                 | 2.5" x 0.80"      | 0.66                | 21.45   | 18.23  | 13.67  |
| 421219   | TS18-08N-1  | NPN            | 0-6.4mm             | 18 x 18 x 1                 | 2.4" x 1.10"      | 0.94                | 26.95   | 22.91  | 17.18  |
| 421227   | TS30-10N-1  | NPN            | 0-8.0mm             | 30 x 30 x 1                 | 2.4" x 1.40"      | 1.40                | 36.29   | 32.66  | 24.50  |
| 421235   | TS30-15N-1  | NPN            | 0-12mm              | 30 x 30 x 1                 | 2.7" x 1.40"      | 1.40                | 40.85   | 36.77  | 33.09  |
| 421243   | S17-05N-1   | NPN            | 0-4.0mm             | 17 x 17 x 1                 | 1.1" x 0.66"      | 0.98                | 14.95   | 13.45  | 12.10  |
| 421251   | S25-07N-1   | NPN            | 0-5.6mm             | 25 x 25 x 1                 | 1.4" x 1.50"      | 0.98                | 24.75   | 21.04  | 15.78  |

## Photo Electric Sensors

| Part No. | Product No. | Output Circuit | Effec. Dist. (Iron) | Standard Target (Iron) (mm) | Size (L" x Dia.) | Mounting Hole (in.) | 1       | 10      | 25      |
|----------|-------------|----------------|---------------------|-----------------------------|------------------|---------------------|---------|---------|---------|
| 421260   | WE-T3AD     | NPN            | 0-5.0m              | ≥8mm Dia.                   | 2.6" x 0.708"    | .710                | \$73.35 | \$62.35 | \$46.76 |
| 421278   | WE-M3D      | NPN            | 0-2.0m              | >10-40mm Dia.               | 2.6" x 0.708"    | .710                | 50.95   | 43.31   | 32.48   |
| 421286   | WE-R3AL     | NPN            | 0-200mm             | —                           | 2.6" x 0.708"    | .710                | 49.19   | 41.81   | 31.36   |
| 421294   | WE-R3BL     | NPN            | 0-80mm              | 15-44mm                     | 2.6" x 0.708"    | .710                | 49.19   | 41.81   | 31.36   |
| 421307   | WE-U3L      | NPN            | 10-30mm             | 18-22mm                     | 2.6" x 0.708"    | .710                | 54.19   | 46.06   | 34.55   |

\* Dark-on † Light-on



## Magnetic Proximity Switch Sensors

- Contact rating: 3W max. @ 30VDC or 0.3A max. @ 30VAC
- Contact form: SPST NO
- Contact resistance: 100mΩ max. initial
- Operating temperature: -40°C to 100°C
- Dielectric strength: 200VDC min.
- Mechanical & electrical life: 10 million operations
- Housing/spacer/cover: ABS plastic (UL94V-0), white
- Reed switch: rhodium coated, hermetically sealed, nitrogen filled glass capsule
- Potting: epoxy
- Wire leads: UL1060 22AWG stranded wire, stripped, 12"L white
- Adhesive mounting: (MPS45WGW only) – foam backed, pressure sensitive



588131



588182



588140

| Part No. | Product No. | Description   | 1      | 10     | 100    |
|----------|-------------|---|--------|--------|--------|
| 588131   | MPS45WGW    | Subminiature surface mount, side exit leads, 1" make gap                                  | \$9.25 | \$8.48 | \$7.78 |
| 588123   | MPS20WGW    | Standard surface mount, screw terminals, 1 1/2" make gap                                  | 10.59  | 9.85   | 9.80   |
| 588182   | MPS9WGW     | 3/8" diameter panel mount, recessed magnetic contact, 1 1/2" make gap (switch and magnet) | 8.35   | 7.64   | 7.35   |
| 588174   | MPS95WGW    | 3/8" diameter panel mount, recessed magnetic contact, 1 1/2" make gap (switch)            | 7.45   | 6.78   | 5.82   |
| 588140   | MPS70WGW    | 3/4" diameter panel mount, recessed magnetic contact, 1 1/2" make gap (switch and magnet) | 8.95   | 8.20   | 7.03   |

## Ultrasonic Sensor Sets

- Use for motion or distance sensing
- Frequency: 40kHz  $\pm 1.0$ kHz
- Aluminum case

**136654:**

**Transmit/Receive Set**

- Capacitance: 2000pF  $\pm 30\%$
- Transmitter: bandwidth 4.0kHz @ 112dB, sound pressure level 119dB @  $40 \pm 1.0$ kHz
- Lead length/spacing: 0.39"
- Receiver: bandwidth 3.5kHz @ -71dB, min. sensitivity 65dB @  $40 \pm 1.0$ kHz (R=3.9k $\Omega$ )
- Case size: 0.47"H x 0.62" Dia.



136654

**139491: Transmit/Receive Set**

- Capacitance: 2000pF  $\pm 20\%$
- Lead length/spacing: 0.28"
- Transmitter: bandwidth 5.0kHz @ 100dB, sound pressure level 112dB @  $40 \pm 1.0$ kHz
- Receiver: bandwidth 5.0kHz @ -75dB, min. sensitivity 67dB @  $40 \pm 1.0$ kHz (R=3.9k $\Omega$ )
- Case size: 0.30"H x 0.43" Dia.



139491

| Part No. | Mfg. Part No. | 1      | 10     | 50     |
|----------|---------------|--------|--------|--------|
| 136654   | 40TR16F       | \$6.95 | \$6.29 | \$5.65 |
| 139491   | 40TR12B       | 6.95   | 6.29   | 5.65   |



## Industrial Grade Magnetic Proximity Sensors

**Solid State, Adjustable Threaded Housing**

- Immune to hostile environments
- Reverse battery protection to -24VDC
- South pole sensitive
- Cable insulation: polyolefin
- Output: 3-wire sink
- Operating temp. range: -40°C to 125°C
- High speed capability
- Source or open collector output
- M12 integral connector
- Operating voltage range: 5-24VDC
- Output saturation voltage max.: 700mV
- SST housing



| Part No. | Product No. | Supply Curr. Max. (mA) | Output Curr. Max. (mA) | Op. Point Gauss (max.) | Rel. Point Gauss (min.) | Cable/Connector     | 1       | 10      | 100     |
|----------|-------------|------------------------|------------------------|------------------------|-------------------------|---------------------|---------|---------|---------|
| 513210   | MP100102    | 12                     | 25                     | 300                    | 60                      | 22AWG x 1m cable    | \$34.39 | \$25.46 | \$23.56 |
| 513228   | MP100502    | 10                     | 24                     | 25                     | 1                       | 12mm circular conn. | 23.25   | 21.28   | 19.63   |



## Commercial Grade Magnetic Proximity Sensor

**Solid State, Adjustable Threaded Housing**

- Anodized aluminum housing (black)
- Sourcing or open collector output
- M12 integral connector meets IEC 60947-5-2
- Output: 3-wire sink
- Operating voltage range: 4.75-24VDC
- High speed capability
- South pole sensitive
- Wire insulation: polyolefin
- Operating temp. range: -40°C to 125°C
- Output saturation voltage: 700mV max.



| Part No. | Product No. | Supply Curr. Max. (mA) | Output Curr. Max. (mA) | Op. Point Gauss (max.) | Rel. Point Gauss (min.) | Wire       | 1       | 10      | 25      |
|----------|-------------|------------------------|------------------------|------------------------|-------------------------|------------|---------|---------|---------|
| 513236   | MP100701    | 12                     | 25                     | 300                    | 60                      | 20AWG x 1m | \$24.25 | \$21.81 | \$19.63 |



## Hall-Effect Magnetic Proximity Sensor

**With Snap-Fit Mount**

- Solid state reliability
- No mechanical contacts to wear out
- South pole sensitive or bi-polar latch
- Operating voltage range: 4.75-24VDC
- Output saturation voltage max.: 400mV
- Immune to dust, dirt, & moisture
- Digital output compatible with all logic families
- Operating temp. range: -40°C to 85°C
- Output: 3-wire sink
- Reverse polarity protection to -24V



| Part No. | Product No. | Supply Curr. Max. (mA) | Output Curr. Max. (mA) | Op. Point Gauss (max.) | Rel. Point Gauss (min.) | Wire       | 1      | 10     | 25     |
|----------|-------------|------------------------|------------------------|------------------------|-------------------------|------------|--------|--------|--------|
| 513244   | MP101301    | 4                      | 25                     | 300                    | 60                      | 24AWG x 1m | \$4.55 | \$4.05 | \$3.85 |



## Digital Hall-Effect Magnetic Proximity Sensor

**Low-Profile Flange Mount**

- Capable of millions of operations
- Reverse battery protection to -24VDC
- Output saturation voltage max.: 400mV
- Applications: door position sensing, flow sensing, pedal switch
- Meets IEC529 IPX5 for water protection
- Output wire: 3-wire sink
- Operating voltage range: 4.5-24VDC



| Part No. | Product No. | Supply Curr. Max. (mA) | Output Curr. Max. (mA) | Op. Point Gauss (max.) | Rel. Point Gauss (min.) | Function        | 1      | 10     | 25     |
|----------|-------------|------------------------|------------------------|------------------------|-------------------------|-----------------|--------|--------|--------|
| 513252   | MP101401    | 5.2                    | 20                     | 185 (south)            | 60 (south)              | Unipolar switch | \$3.85 | \$3.63 | \$3.45 |



## Magnetic Proximity Sensors

- Omnipolar, magnetically activated switch
- Can be approached by any magnet from any angle with either pole
- Hermetically sealed
- Contact resistance: 0.2 $\Omega$  max.
- Zero power consumption
- Breakdown voltage: 200VDC min.
- Operating temp. range: -40°C to 105°C



**Aluminum Threaded Housing**

- Immune to hostile environments
- Suitable for AC/DC circuits

| Part No. | Product No. | Contact Form | Power (W) | Switching volt. Max. (VDC) | Switching Curr. Max. (A) | Op. Time Typical (ms) | 1      | 10     | 25     |
|----------|-------------|--------------|-----------|----------------------------|--------------------------|-----------------------|--------|--------|--------|
| 513279   | MP200701    | SPST NO      | 10        | 175                        | 0.5                      | 0.6                   | \$7.15 | \$6.80 | \$6.46 |
| 513287   | MP200702    | SPST NC      | 3         | 100                        | 0.2                      | 1.0                   | 7.89   | 7.49   | 7.12   |
| 513295   | MP200703    | SPDT CO      | 3         | 100                        | 0.2                      | 1.0                   | 12.45  | 11.06  | 9.22   |

**Cylindrical Plastic Housing**

- Resistant to dirt and moisture

| Part No. | Product No. | Contact Form | Power (W) | Switching volt. Max. (VDC) | Switching Curr. Max. (A) | Op. Time Typical (ms) | 1      | 10     | 25     |
|----------|-------------|--------------|-----------|----------------------------|--------------------------|-----------------------|--------|--------|--------|
| 482396   | AS201701    | SPST NO      | 10        | 175                        | 0.5                      | 0.5                   | \$2.15 | \$2.04 | \$1.87 |
| 513308   | MP201701    | SPST NO      | 10        | 175                        | 0.5                      | 0.5                   | 3.05   | 2.67   | 2.23   |
| 513316   | MP201702    | SPST NC      | 3         | 100                        | 0.2                      | 1.0                   | 3.25   | 3.05   | 2.90   |
| 513324   | MP201703    | SPDT CO      | 3         | 100                        | 0.2                      | 1.0                   | 5.55   | 4.98   | 4.49   |

## Digital Hall-Effect Proximity Sensors

**MP1021 Series**

- Plastic flange-mount housing
- Supply current: 12mA max.
- Operating voltage range: 4.5-24VDC
- Output current: 25mA max.
- Output saturation voltage: 500mV max.



These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

See Our MP1021 Series Proximity Sensors Offering at [www.Jameco.com/Prod/CherrySensors](http://www.Jameco.com/Prod/CherrySensors)

## Actuator Magnet Speed and Proximity Sensor

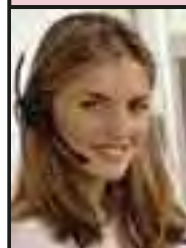
- Aluminum housing
- Adjustable thread mounting stud
- Operating temp. range: -40°C to 150°C



482388

| Part No. | Product No. | Description             | 1      | 10     | 100    |
|----------|-------------|-------------------------|--------|--------|--------|
| 482370   | AS101001    | South pole facing ..... | \$4.89 | \$4.34 | \$3.61 |
| 482388   | AS101002    | North pole facing ..... | 3.65   | 3.45   | 3.38   |

## Free Technical Support



Our knowledgeable Tech Support department is ready to answer your questions. Just call us! 1-800-831-4242

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RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

# Proximity, Speed Sensors, Knobs & Hardware Assortments



## Reed-Based Magnetic Proximity Sensors

Quantity SAVE

### Plastic Flange Mount

- Hermetically sealed contacts
- Contact resistance: 0.2Ω max.
- Zero power consumption
- Op. temp. range: -40°C to 105°C
- Moisture and dirt resistant

### AS2018/MP2018 Series

| Part No. | Product No. | Contact Form | Power (W) | Switching volt. Max. (VDC) | Switching Curr. Max. (A) | Op. Time Typical (ms) | Pricing |        |        |
|----------|-------------|--------------|-----------|----------------------------|--------------------------|-----------------------|---------|--------|--------|
|          |             |              |           |                            |                          |                       | 1       | 10     | 25     |
| 482409   | AS201801    | SPST NO      | 10        | 175                        | 0.5                      | 0.6                   | \$2.25  | \$2.14 | \$1.99 |
| 513332   | MP201801    | SPST NO      | 10        | 175                        | 0.5                      | 0.6                   | 3.29    | 2.92   | 2.44   |
| 513341   | MP201802    | SPST NC      | 3         | 100                        | 0.2                      | 1.0                   | 4.95    | 4.21   | 3.16   |

### AS2019/MP2019 Series

- Immune to hostile environments
- Suitable for AC/DC circuits
- Breakdown voltage: 200VDC min.

| Part No. | Product No. | Contact Form | Power (W) | Switching volt. Max. (VDC) | Switching Curr. Max. (A) | Op. Time Typical (ms) | Pricing |        |        |
|----------|-------------|--------------|-----------|----------------------------|--------------------------|-----------------------|---------|--------|--------|
|          |             |              |           |                            |                          |                       | 1       | 10     | 25     |
| 482417   | AS201901    | SPST NO      | 10        | 175                        | 0.5                      | 0.6                   | \$3.25  | \$2.85 | \$2.38 |
| 513359   | MP201901    | SPST NO      | 10        | 175                        | 0.5                      | 0.6                   | 2.85    | 2.66   | 2.53   |
| 513367   | MP201902    | SPST NC      | 3         | 100                        | 0.2                      | 1.0                   | 4.55    | 4.28   | 4.07   |
| 513375   | MP201903    | SPST CO      | 3         | 100                        | 0.2                      | 1.0                   | 3.99    | 3.79   | 3.60   |

Lower \$\$\$



## Gear Tooth Speed Sensor

### With Flange Style Plastic Housing

- Sense motion of ferrous gear tooth targets
- High speed capability
- Near-zero speed sensing capability
- Immune to hostile environments: electrostatic discharge, electrical transients, radiated electric field, conducted energy, magnetic filed energy
- Operating voltage range: 5-24VDC
- Meets all IEC requirements for heavy industrial equipments
- Supply current: 6mA max.
- Output: sink
- Output saturation voltage: 400mV max.
- Output current: 4mA max.
- Cable: 22AWG x 1m

| Part No. | Product No. | 1       | 10      | 25      |
|----------|-------------|---------|---------|---------|
| 512410   | GS101202    | \$31.25 | \$28.18 | \$25.34 |



## Industrial Grade Gear Tooth Speed Sensors

### Hall-Effect with Adjustable Steel Housing

- Sense motion of ferrous gear tooth targets
- Near-zero speed sensing capability
- Meets all IEC immunity from: electrostatic discharge, electrical transients, radiated electric field, conducted energy
- Immune from hostile environments
- Reverse battery protection to -24VDC
- Operating voltage range: 4.5-24VDC
- Output saturation voltage: 700mV max.
- Output: sink
- Barrel length: 65mm
- Supply current: 6mA max.
- Output current: 25mA max.
- Operating temp. range: -40°C to 105°C

| Part No. | Product No. | Thread | Cable/Connector     | 1       | 10      | 100     |
|----------|-------------|--------|---------------------|---------|---------|---------|
| 512364   | GS100101    | M12-1  | 12mm circular conn. | \$53.85 | \$39.54 | \$36.80 |
| 512372   | GS100102    | M12-1  | 22AWG x 1m cable    | 40.05   | 38.00   | 35.15   |
| 512381   | GS100201    | M18-1  | 12mm circular conn. | 37.25   | 35.39   | 33.01   |



## Commercial Grade Gear Tooth Speed Sensors

### Hall-Effect with Adjustable Aluminum Housing

- Sense motion of ferrous gear tooth targets
- Near-zero speed sensing capability
- Immune from hostile environments
- Reverse battery protection from 24VDC
- Operating voltage range: 4.5-24VDC
- Output voltage: 400mV max.
- Output: sink
- Wire: 20AWG x 1m
- Supply current: 6mA max.
- Output current: 25mA max.
- Operating temp. range: -40°C to 125°C

| Part No. | Product No. | Housing    | Thread      | Barrel lgth. | 1       | 10      | 25      |
|----------|-------------|------------|-------------|--------------|---------|---------|---------|
| 512399   | GS100502    | Alum., red | M12-1       | 65mm         | \$29.35 | \$26.37 | \$23.76 |
| 512401   | GS100701    | Alum., blk | 15/32" - 32 | 1.0"         | 21.39   | 20.31   | 19.29   |



## Digital Vane Speed & Proximity Sensors

- Magnetically activated
- Rugged over molded plastic housing
- Immune from moisture & dust
- No mechanical contacts to wear out
- Reverse battery protection to -24VDC
- Open collector output compatible w/ all logic families
- Sensor body material: glass filled polyester
- Operating voltage range: 4.5-24VDC
- Operating temperature range: -40°C to 85°C
- Supply current: 6mA max.
- Output current: 25mA max.
- Output saturation voltage: 400mV max.

| Part No. | Product No. | Output      | Termination Pins | 1      | 10     | 25     |
|----------|-------------|-------------|------------------|--------|--------|--------|
| 577580   | VN101501    | 3-pin sink  | Pins             | \$5.55 | \$5.26 | \$4.04 |
| 577598   | VN101503    | 3 wire sink | 24AWG x 150mm    | 5.75   | 5.39   | 5.13   |



## Gear Tooth Speed and Direction Sensors

- Sense speed & direction of ferrous gear tooth targets
- Plastic flange mount sensor rated to 125°C
- Locating mark provided to assure correct rotational alignment
- Internal circuit protection to IEC529 1000
- Meets IEC529 IP67 for dust & water protection
- Near-zero speed sensing capability
- Operating voltage range: 4.75-24VDC
- Supply current: 20mA max.
- Output current: 20mA max.
- Capable of 800Hz target speed
- Reverse battery protected to -30VDC
- Output saturation voltage: 1000mV max.
- Output: sink
- Blue Part No. = Limited Quantity

| Part No. | Product No. | Op. Temp. Range | Housing Material | 1       | 10      | 100     |
|----------|-------------|-----------------|------------------|---------|---------|---------|
| 577328   | SD100103    | -40°C to 85°C   | Aluminum         | \$56.05 | \$45.44 | \$40.88 |
| 577336   | SD101201    | -40°C to 125°C  | Plastic          | 24.85   | 23.56   | 21.18   |

## Alcoswitch P Series Knobs

- 1/4" or 1/8" shaft sizes
- Insert: Copper alloy
- General purpose phenolic (thermoset)
- Set screws: steel, hex head, cup point
- Finish: gloss (except PKX, matte)
- Inlays: skirts: aluminum alloy, spun finish



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See Our P Series Alcoswitch Knobs Offering at [www.Jameco.com/Prod/AlcoKnobs](http://www.Jameco.com/Prod/AlcoKnobs)

## Hardware and Spacer Assortment Kit

Includes 2300 pcs. (23 types) Spacers, Nuts, Flat, Tooth & Lock Washers and Slotted PH Screws

SAVE \$61



| 100 each | 100 each               | 100 each | 100 each   | 100 each   | 100 each          |
|----------|------------------------|----------|------------|------------|-------------------|
| Spacers  | Hex nuts               | Flat     | Int. tooth | Split lock | PH machine screws |
| —        | 2-56                   | —        | —          | #2         | 2-56 x 1/4, —     |
| 4-40     | 4-40                   | #4       | #4         | #4         | 4-40 x 1/4, 1/2   |
| 6-32     | 6-32                   | #6       | #6         | #6         | 6-32 x 1/4, 1/2   |
| 8-32     | 8-32                   | #8       | #8         | #8         | 8-32 x 1/2, —     |
| Part No. | Description            |          | Wt. (lbs.) | 1          | 10                |
| 108433   | 2300 pcs. Hardware kit |          | 7.5        | \$55.95    | \$52.49           |

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203



JAMECO  
ValuePro

## Color Instrumentation Knobs

Lower\$\$\$ (1/4" Shaft Diameters) Quantity SAVE

- JK-907 series: pressure fit type, top set screw; JK-905 series: side set screw
- CR-MS series for knurled shaft
- All photos on [www.Jameco.com](http://www.Jameco.com)



Fig. 1  
264823



Fig. 2  
265084



Fig. 3  
265033



Fig. 4  
265228

| Part No. | Cross Ref. No.    | Body Color   | Pointer Color | Size (H" x Dia.) | Fig. | 1           | 10    | 100   |
|----------|-------------------|--------------|---------------|------------------|------|-------------|-------|-------|
| 264823   | CPBTAA191A1S6.4BK | Black/black  | White         | .79 x .77        | 1    | .....\$ .99 | \$.84 | \$.63 |
| 265050   | JK-905A           | Black/red    | White         | .58 x .57        | 2    | ......65    | .59   | .58   |
| 265068   | JK-905B           | Black/yellow | White         | .58 x .57        | 2    | ......79    | .62   | .465  |
| 265077   | JK-905C           | Black/blue   | White         | .58 x .57        | 2    | ......92    | .73   | .66   |
| 265084   | JK-905D           | Black/green  | White         | .58 x .57        | 2    | ......79    | .63   | .57   |
| 265017   | JK-904A           | Black/red    | White         | .47 x .78        | 3    | ......99    | .84   | .63   |
| 265025   | JK-904B           | Black/yellow | White         | .47 x .78        | 3    | ......99    | .84   | .63   |
| 265033   | JK-904C           | Black/blue   | White         | .47 x .78        | 3    | ......99    | .84   | .63   |
| 265041   | JK-904D           | Black/green  | White         | .47 x .78        | 3    | ......99    | .84   | .63   |
| 265261   | CR-MS-5C5-T18     | Grey         | Grey          | .68 x .51        | 4    | ......67    | .60   | .45   |
| 265252   | CR-MS-4C5-T18     | Grey         | Green         | .68 x .51        | 4    | ......78    | .67   | .61   |
| 265244   | CR-MS-3C5-T18     | Grey         | Blue          | .68 x .51        | 4    | ......79    | .67   | .503  |
| 265236   | CR-MS-2C5-T18     | Grey         | Yellow        | .68 x .51        | 4    | ......67    | .60   | .45   |
| 265228   | CR-MS-1C5-T18     | Grey         | Red           | .68 x .51        | 4    | ......74    | .66   | .495  |

\* For use with 1/4" knurled shaft

Blue Part No. = Limited Quantity Available

JAMECO  
ValuePro

## Aluminum Instrumentation Knobs

(1/8" and 1/4" Shaft Diameters)

Includes: Set screw for secure attachment

290125: Coarse surface for sensitive control; 1/8" shaft dia.



Fig. 1



Fig. 2



Fig. 3



Fig. 4

Quantity SAVE

| Part No. | Cross<br>Ref. No. | Fig. | Shaft<br>Size | Body<br>Color | Pointer<br>Color | Size<br>(H" x Dia.) | 1      | 10     | 100    |
|----------|-------------------|------|---------------|---------------|------------------|---------------------|--------|--------|--------|
| 290125   | 42008-1           | 1    | 1/8"          | Silver        | Silver           | .500 x .625 ..      | \$1.99 | \$1.79 | \$1.61 |
| 162481   | K5-1/4S           | 2    | 1/4"          | Chrome        | Silver           | .500 x .560 ....    | 1.19   | 1.09   | .96    |
| 162499   | K5-1/4B           | 3    | 1/4"          | Black         | White            | .500 x .560 ....    | 1.55   | 1.32   | .99    |
| 138482   | KN031             | 4    | 1/4"          | Alum.         | Black            | .610 x .650 ....    | 1.49   | 1.35   | 1.19   |
| 138502   | KN032             | 4    | 1/4"          | Alum.         | Black            | .870 x .750 ....    | 1.95   | 1.71   | 1.55   |
| 138510   | KN033             | 4    | 1/4"          | Alum.         | Black            | 1.18 x .870 ....    | 2.49   | 2.12   | 1.59   |

JAMECO  
ValuePro

## Black Instrumentation Knobs

Lower\$\$\$ (1/4" Shaft Diameters) Quantity SAVE

- Set screw for secure attachment
- RN-112A/113A/114A: Numeric dial type



265092



265105



265121



264998



265009



264883



264892



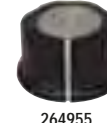
264911



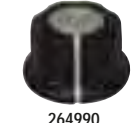
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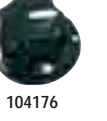
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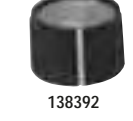
102788



104176



202287



136241



138392

| Part No. | Cross Ref. No. | Body Color | Color   | (H" x Dia. ") | 1     | 10    | 100   |
|----------|----------------|------------|---------|---------------|-------|-------|-------|
| 265092   | JK-906A        | Black      | White   | .72 x 1.39    | \$.95 | \$.81 | \$.61 |
| 265105   | JK-906B        | Black      | White   | .79 x .95     | 1.02  | .71   | .65   |
| 265121   | JK-906D        | Black      | White   | .58 x .61     | .68   | .55   | .54   |
| 264998   | JK-902A        | Black      | White   | .69 x 1.31    | .75   | .69   | .65   |
| 265009   | JK-902B        | Black      | White   | .60 x .95     | .69   | .47   | .44   |
| 264920   | JK-901A        | Black/alum | White   | .79 x 1.77    | 1.25  | 1.06  | .80   |
| 264946   | JK-901B        | Black/alum | White   | .64 x 1.29    | .78   | .60   | .56   |
| 264955   | JK-901C        | Black/alum | White   | .61 x 1.06    | .75   | .59   | .54   |
| 264990   | JK-901D        | Black/alum | White   | .47 x .78     | .68   | .53   | .48   |
| 264883   | RN-112A        | Black/alum | Numeric | .90 x 1.46    | .99   | .93   | .88   |
| 264892   | RN-113A        | Black/alum | Numeric | .70 x 1.15    | .99   | .93   | .88   |
| 264911   | RN-114A        | Black/alum | Numeric | .58 x 1.46    | .99   | .93   | .88   |
| 102788   | JK-903C        | Black      | White   | .54 x 1.25    | .64   | .41   | .39   |
| 104176   | JK-902C        | Black      | White   | .49 x .75     | .99   | .85   | .65   |
| 202287   | CP-Z1-M-S      | Black/alum | White   | .60 x .80     | .79   | .69   | .64   |
| 136241   | GKB-214        | Black/alum | White   | .52 x .54     | .65   | .55   | .49   |
| 138392   | 41108-1        | Black/alum | White   | .56 x .85     | .79   | .59   | .55   |

Blue Part No. = Limited Quantity Available

## Alcoswitch

## Knobs



550483



550619



550475



550740



550782



550707

### Straight Knurl w/ Top & Side Indicator

| Part No. | Product No.  | Color   | Shaft Size | H" x Dia."        | 1       | 10      | 100     |
|----------|--------------|---------|------------|-------------------|---------|---------|---------|
| 550483   | KLN1250A1/4♣ | Natural | 1/4"       | .281 x 1.252 .... | \$14.89 | \$10.85 | \$10.31 |
| 550512   | KLN500B1/4♣  | Black   | 1/4"       | .281 x .500 ..... | 8.15    | 6.50    | 5.64    |
| 550521   | KLN500B1/8♣  | Black   | 1/8"       | .281 x .500 ..... | 8.09    | 6.27    | 6.22    |

### Straight Knurl w/ Spinner, No Indicator

|        |              |         |      |                   |         |         |         |
|--------|--------------|---------|------|-------------------|---------|---------|---------|
| 550580 | KN1751AS1/4♠ | Natural | 1/4" | 1.65 x 1.75 ..... | \$22.09 | \$20.83 | \$19.79 |
| 550598 | KN1751BS1/4♠ | Black   | 1/4" | 1.65 x 1.75 ..... | 22.09   | 20.83   | 19.79   |

### Straight Knurl w/ Indicator Line

|        |            |         |      |                   |        |        |        |
|--------|------------|---------|------|-------------------|--------|--------|--------|
| 550619 | KN500B1/4♣ | Black   | 1/4" | .625 x .500 ..... | \$6.85 | \$5.81 | \$5.52 |
| 550660 | KN700B1/4♣ | Black   | 1/4" | .625 x .750 ..... | 9.49   | 7.33   | 6.96   |
| 550678 | KN900A1/4  | Natural | 1/4" | .625 x .949 ..... | 9.95   | 9.43   | 8.96   |
| 550686 | KN900B1/4  | Black   | 1/4" | .625 x .949 ..... | 10.85  | 9.43   | 8.96   |

▲ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product

▲ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

### Straight Knurl w/ Indicator Line on Skirt

| Part No. | Product No.  | Color       | Shaft Size | H" x Dia."        | 1      | 10     | 100    |
|----------|--------------|-------------|------------|-------------------|--------|--------|--------|
| 550475   | KFS500B1/4♠* | Black matte | 1/4"       | .811 x .382 ..... | \$9.05 | \$7.06 | \$6.71 |

\* w/ #6-32 set screw

### Straight Knurl w/ Pointer and Indicator Line

|        |             |         |      |                   |         |         |         |
|--------|-------------|---------|------|-------------------|---------|---------|---------|
| 550740 | KPN500B1/8  | Black   | 1/8" | .625 x .500 ..... | \$13.75 | \$13.07 | \$12.45 |
| 550766 | KPN700B1/4♣ | Black   | 1/4" | .625 x .750 ..... | 15.55   | 14.75   | 14.01   |
| 550774 | KPN900A1/4♣ | Natural | 1/4" | .625 x .937 ..... | 18.85   | 14.01   | 12.33   |
| 550782 | KPN900B1/4♣ | Black   | 1/4" | .625 x .937 ..... | 19.05   | 14.01   | 12.33   |

### Straight Knurl w/ Arrowhead Indicator, Two-Toned

|        |             |             |      |             |       |        |        |        |
|--------|-------------|-------------|------|-------------|-------|--------|--------|--------|
| 550635 | KN501BA1/4♠ | Blk/natural | 1/4" | .445 x .500 | ..... | \$7.55 | \$5.81 | \$5.52 |
|--------|-------------|-------------|------|-------------|-------|--------|--------|--------|

### Straight Knurl w/ Arrowhead Indicator on Skirt

|        |              |             |      |                   |         |        |        |
|--------|--------------|-------------|------|-------------------|---------|--------|--------|
| 550707 | KNS501BA1/4♠ | Blk/natural | 1/4" | .625 x .750 ..... | \$11.85 | \$9.17 | \$8.71 |
| 550723 | KNS701BA1/4♠ | Blk/natural | 1/4" | .625 x 1.12 ..... | 10.99   | 10.35  | 9.84   |

### Diamond Knurl w/ Indicator Line

|        |            |       |      |                   |        |        |        |
|--------|------------|-------|------|-------------------|--------|--------|--------|
| 550432 | KD500B1/4♣ | Black | 1/4" | .630 x .500 ..... | \$6.55 | \$6.21 | \$5.90 |
| 550459 | KD700B1/4♣ | Black | 1/4" | .630 x .750 ..... | 8.55   | 6.21   | 5.90   |

JAMECO ValuePro

## Sonic Transducers and Buzzers

Quantity SAVE

**Magnetic Transducers** • Applied voltage: 1/2 duty, square wave

| Part No.                                 | Cross Ref. No. | Fig. | Operating Volt.<br>(Vp-p/mA) | Volt. Range<br>(Vp-p) | Freq.<br>(Hz) | Sound<br>(dB) | Dimensions        | Pricing |        |        |                  |
|--|----------------|------|------------------------------|-----------------------|---------------|---------------|-------------------|---------|--------|--------|------------------|
|  |                |      |                              |                       |               |               |                   | 1       | 10     | 100    | 1000             |
| 207917                                   | DB105GFPN      | 1    | 1.5/30                       | 1 – 2                 | 2048          | 75            | .22"H x .47"Dia.  | \$1.49  | \$1.34 | \$1.14 | <del>\$.85</del> |
| 138721                                   | DB111A-PN      | 2    | 1.5/10                       | 1 – 2                 | 2048          | 80            | .32"H x .46"Dia.  | 1.49    | 1.34   | 1.14   | <del>.86</del>   |
| 335644                                   | PB-12N23P-12   | 3    | 12/50                        | 9 – 15                | 2300          | 85            | 10mm H x 12mm Dia | 2.69    | 2.42   | 1.94   | <del>1.46</del>  |
| 138740                                   | DBX05-PN       | 2    | 5/40                         | 3 – 8                 | 2400          | 85            | .35"H x .46"Dia.  | 1.49    | 1.35   | 1.19   | .99              |
| 106500                                   | SBT-1205       | 2    | 5/40                         | 3 – 8                 | 2400          | 85            | .40"H x .48"Dia.  | 1.49    | 1.35   | 1.25   | 1.09             |
| 207951                                   | UDX05CPN       | 3    | 5/100                        | 4 – 8                 | 3100          | 85            | .22"H x .35"Dia.  | 1.35    | .99    | .92    | .83              |
| <b>Other Manufacturers — Great Deals</b> |                |      |                              |                       |               |               |                   |         |        |        |                  |
| 673918                                   | SEP-1162       | 4    | 20/7                         | —                     | 4000          | 80            | .28"H x .55"Dia.  | \$1.95  | \$ .99 | \$ .92 | \$ .83           |
| 673926                                   | SEP2202A       | 5    | 3-20/11                      | 3 – 20                | 3000          | 85            | .64"H x .96"Dia.  | 1.95    | 1.79   | 1.55   | 1.09             |
| 673871                                   | PRT-1205       | 2    | 5/40                         | 3 – 8                 | 2400          | 90            | .35"H x .46"Dia.  | 1.25    | 1.15   | .99    | .75              |
| 1537408                                  | QMB-01         | 7    | 1.5/15                       | —                     | 2048          | 80            | .53"H x .63"Dia.  | 1.29    | 1.19   | 1.05   | .75              |

### Magnetic Buzzers

|  |          |   |        |          |      |    |                  |        |        |        |                 |
|--|----------|---|--------|----------|------|----|------------------|--------|--------|--------|-----------------|
| 207984                                   | TDB01    | 6 | 1.5/30 | 1.25 – 2 | 2300 | 75 | .47"H x .38"Dia. | \$2.49 | \$2.29 | \$1.99 | \$1.79          |
| 76065                                    | TDB05-PN | 6 | 5/30   | 4 – 7    | 2300 | 85 | .35"H x .46"Dia. | 2.99   | 2.79   | 2.69   | 2.59            |
| 207976                                   | TDB12    | 6 | 12/30  | 8 – 15   | 2300 | 85 | .47"H x .38"Dia. | 2.49   | 2.24   | 1.79   | <del>1.34</del> |
| <b>Other Manufacturers — Great Deals</b> |          |   |        |          |      |    |                  |        |        |        |                 |
| 673774                                   | SBT-1612 | 7 | 12/40  | 6-18     | 2048 | 85 | .53"H x .62"Dia. | \$2.09 | \$1.89 | \$1.65 | \$1.39          |

### Piezo Buzzers

|  |             |                 |           |          |      |     |                       |        |        |        |                  |
|--|-------------|-----------------|-----------|----------|------|-----|-----------------------|--------|--------|--------|------------------|
| 336276                                   | PT-1250W    | 8               | 3/1.5     | 2 – 5    | 1250 | 85  | 13mm H x 30mm Dia.    | \$1.55 | \$1.40 | \$1.12 | <del>\$.84</del> |
| 337210                                   | SC628D      | 9               | 6-28/5-18 | 6 – 28   | 1900 | 75  | 1.28"H x 1.69"Dia.    | 9.49   | 8.54   | 6.83   | <del>5.12</del>  |
| 336022                                   | PK-27N26W   | 10              | 12/15     | 3 – 28   | 2500 | 90  | 10mm H x 30mm Dia.    | 3.49   | 3.14   | 2.51   | <del>1.88</del>  |
| 335505                                   | MAS800      | 11              | 12/50     | 9 – 12   | 2800 | 103 | 15.2mm H x 26mm Dia.  | 4.15   | 3.74   | 2.99   | <del>2.24</del>  |
| 335530                                   | MAS806      | 11              | 12/50     | 5 – 14   | 2800 | 103 | 15.2mm H x 26mm Dia.  | 5.25   | 4.73   | 3.78   | 3.02             |
| 336663                                   | SC105       | 9               | 1-5/3-16  | 1 – 5    | 2900 | 75  | 1.28"H x 1.69"Dia     | 10.05  | 9.05   | 7.24   | <del>5.43</del>  |
| 337535                                   | SNP428      | 12              | 4-28/3-16 | 4 – 28   | 2900 | 76  | .85"H x 1.64"Dia      | 8.49   | 7.64   | 6.11   | <del>4.58</del>  |
| 336639                                   | SBM616PU    | 13              | 6-16/3-12 | 6 – 16   | 2900 | 78  | .62"H x 1.69"Dia      | 14.99  | 13.49  | 10.79  | <del>8.09</del>  |
| 123537                                   | 11D3240     | 14*             | 24/20     | 4 – 28   | 2900 | 80  | 1.4"H x 1.7"Dia.      | 4.19   | 3.79   | 3.65   | 3.49             |
| 337383                                   | SC628P      | 9               | 6-28/4-16 | 6 – 28   | 2900 | 80  | 1.84"H x 1.69"Dia     | 15.69  | 14.12  | 11.30  | <del>8.48</del>  |
| 337359                                   | SC628N      | 9               | 6-28/4-16 | 6 – 28   | 2900 | 90  | 1.28"H x 1.69"Dia     | 10.95  | 9.85   | 7.88   | <del>5.91</del>  |
| 32601                                    | 11S3240     | 14              | 24/15     | 1 – 28   | 2900 | 95  | 1.4"H x 1.7"Dia       | 4.95   | 4.45   | 4.29   | 4.09             |
| 336989                                   | SC616N      | 9 <sup>C</sup>  | 6-16/6-22 | 6 – 16   | 2900 | 95  | 1.28"H x 1.69"Dia     | 12.35  | 11.11  | 8.89   | <del>6.67</del>  |
| 336997                                   | SC616NJ     | 9 <sup>S</sup>  | 6-16/6-22 | 6 – 16   | 2900 | 95  | 1.28"H x 1.69"Dia     | 16.79  | 15.11  | 12.09  | <del>9.07</del>  |
| 335556                                   | MSR320      | 15              | 3-20/3-16 | 3 – 20   | 3400 | 80  | .39"H x .91"Dia       | 2.55   | 2.30   | 1.84   | 1.38             |
| 76021                                    | 7S3240-LA   | 16              | 24/20     | 1.5 – 28 | 3200 | 95  | 1.0"H x 1.1"Dia       | 4.99   | 4.69   | 4.49   | 4.29             |
| 335695                                   | PF-20A35EW  | 16 <sup>F</sup> | 12/10     | 3 – 28   | 3500 | 95  | 25mm H x 28mm Dia     | 5.09   | 4.58   | 3.66   | <del>2.74</del>  |
| 207993                                   | SL15R3120LA | 17              | 12/250    | 6 – 16   | 3500 | 105 | 2.3"L x 1.8"W x 1.6"H | 6.95   | 6.29   | 5.99   | 5.75             |
| 336314                                   | PT-2038FW   | 5               | 12/8      | 3 – 28   | 3800 | 85  | 4.5mm H x 24mm Dia.   | 1.15   | 1.09   | 1.05   | .95              |
| 335927                                   | PK-20A38P   | 3               | 12/15     | 3 – 24   | 3800 | 95  | 18mm H x 23mm Dia.    | 3.55   | 3.20   | 2.56   | <del>1.92</del>  |
| 335564                                   | MSR516N     | 3               | 5-16/3-14 | 5 – 16   | 3850 | 86  | .39"H x .91"Dia.      | 3.45   | 3.11   | 2.49   | <del>1.87</del>  |
| 138712                                   | 32S4120-PN  | 6               | 12/7      | 3 – 16   | 4000 | 80  | .30"H x .54"Dia.      | 2.49   | 2.25   | 2.09   | <del>1.56</del>  |
| 196357                                   | AL-175      | 6               | 12/5.8    | 3 – 16   | 4000 | 86  | .30"H x .54"Dia.      | 2.99   | 2.69   | 2.35   | 2.06             |
| 335855                                   | PK-12N40P   | 3               | 12/10     | 3 – 15   | 4100 | 83  | 8mm H x 14mm Dia.     | 3.29   | 3.07   | 3.05   | 2.69             |
| <b>Other Manufacturers — Great Deals</b> |             |                 |           |          |      |     |                       |        |        |        |                  |
| 454521                                   | MSR3205     | 15              | 20/16     | 3 – 20   | 3400 | 80  | .39"H x .91"Dia.      | \$6.99 | \$2.14 | \$1.94 | \$1.78           |
| 673900                                   | SEP-1172    | 18              | 3-28/7    | 3 – 28   | 3300 | 81  | .62"H x 1.27"Dia.     | 1.95   | 1.75   | 1.29   | .99              |

\* Dual tone    <sup>C</sup> = Continuous tone    <sup>S</sup> = Slow pulse    <sup>F</sup> = Fast pulse

### Mechanical/Electromechanical Buzzers

|        |            |    |       |        |     |    |                       |        |        |        |                |
|--------|------------|----|-------|--------|-----|----|-----------------------|--------|--------|--------|----------------|
| 24871  | 63S109LA   | 19 | 9/30  | 6 – 12 | 400 | 75 | 1.3"L x 0.7"W x 0.6"H | \$2.49 | \$2.19 | \$1.99 | \$1.79         |
| 140695 | 63S1120-LA | 19 | 12/25 | 9 – 15 | 400 | 75 | 1.3"L x 0.7"W x 0.6"H | 1.55   | 1.40   | 1.12   | <del>.84</del> |



<sup>B</sup> Blue Part No. = Limited Quantity Available

### Piezo Sirens

|        |         |    |        |        |           |     |                              |        |        |        |        |
|--------|---------|----|--------|--------|-----------|-----|------------------------------|--------|--------|--------|--------|
| 336188 | PS-520  | 17 | 12/200 | 5 – 15 | 3000      | 105 | 40mm W x 57.5mm D x 44.5mm H | \$9.25 | \$8.33 | \$6.66 | \$5.96 |
| 207888 | 18R3120 | 20 | 12/120 | 9 – 15 | 1500-3100 | 105 | 3.4"L x 2.2"W x 1.3"H        | 5.99   | 5.79   | 5.49   | 5.29   |
| 336225 | PS-562  | 21 | 12/40  | 5 – 15 | 2500/3500 | 100 | 16mm H x 42mm Dia            | 5.05   | 4.92   | 4.53   | 4.13   |

### Surface Mount Electromechanical Buzzers

|        |        |    |        |         |      |    |                     |        |        |        |                   |
|--------|--------|----|--------|---------|------|----|---------------------|--------|--------|--------|-------------------|
| 335388 | AST500 | 22 | 1.5/50 | 1.2 – 3 | 2400 | 85 | 12.8mm Sq. x 10mm H | \$2.95 | \$2.65 | \$2.12 | <del>\$1.59</del> |
| 335345 | ASI301 | 22 | 5/30   | 4 – 7   | 2400 | 90 | 12.6mm Sq. x 10mm H | 2.75   | 2.48   | 1.98   | <del>1.49</del>   |
| 335353 | ASI401 | 22 | 12/30  | 8 – 15  | 2400 | 90 | 12.6mm Sq. x 10mm H | 1.79   | 1.61   | 1.29   | <del>.97</del>    |

 RoHS compliant product     This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.    [Details on page 1.](#)

Color Code Legend  
**New** **Sale** **Lower\$** **QtySave**

Order 24/7 Toll Free 1-800-831-4242

205



Electromech

## 1.2" (30mm) PCB Mountable Speaker

- Round frame design
- Mylar diaphragm
- Output SPL: 82 dB
- Nominal input: 0.15W; max. input: 0.2W • Pin spacing: 15mm
- Ideal for PC board mounting
- Impedance: 8Ω
- Frequency range: 700 – 5000Hz
- Pin spacing: 15mm



Quantity SAVE

| Part No. | Cross Ref. No. | Description  | Dimensions       | 1      | 10     | 100    |
|----------|----------------|--------------|------------------|--------|--------|--------|
| 135722   | PCM415         | Solder leads | 1.2"Dia. x 0.5"D | \$2.15 | \$1.79 | \$1.34 |

## Speaker Terminals

Make a solid connection with these push-release speaker terminals. Color-coded red/black connections for positive & negative side of speakers, screwmount plates for easy installation.

- Requires 1.92" round cut-out for recessed mounting



| Part No. | Description             | Size           | Price  |
|----------|-------------------------|----------------|--------|
| 318641   | Round speaker terminals | 2.95" diameter | \$ .43 |

## Round Ferrite Speakers

- 320135: with 2" lead wires • Pre-tinned speaker lugs • Large magnet • Anodized metal surfaces
- Braided copper voice coil leads • Paper diaphragm

Quantity SAVE

For speaker wire, see page 104

| Part No. | Mfg. P/N | Dimensions (Dia. " x D") | Input   |         | Impedance (Ω) | Output SPL (dB) | Frequency Range (Hz) | Magnet Size (Dia. " x H") | Pricing |        |        |
|----------|----------|--------------------------|---------|---------|---------------|-----------------|----------------------|---------------------------|---------|--------|--------|
|          |          |                          | Nom (W) | Max (W) |               |                 |                      |                           | 1       | 10     | 100    |
| 320362   | TRF-050F | 2.0 x 0.7                | 0.25    | 0.5     | 8             | 86              | 320 – 4000           | 1.3 x 0.4                 | \$2.09  | \$1.64 | \$1.24 |
| 135589   | FE200    | 2.0 x 0.7                | 0.2     | 0.4     | 8             | 83              | 420 – 5000           | 1.3 x 0.4                 | 1.59    | 1.33   | 1.09   |
| 320135   | C35128A  | 2.0 x 0.7                | 0.2     | 0.4     | 8             | —               | —                    | 1.3 x 0.4                 | 1.59    | 1.35   | 1.01   |
| 10840    | FE201    | 2.2 x 0.7                | 0.2     | 0.4     | 8             | 88              | 400 – 4500           | 1.3 x 0.4                 | 1.59    | 1.43   | 1.07   |
| 320354   | TR-066F  | 2.6 x 0.9                | 0.25    | 0.5     | 8             | 85              | 440 – 3500           | 1.3 x 0.4                 | 1.45    | 1.23   | .92    |



135589 Side



135589 Back

## Square Ferrite Speakers

- Pre-tinned speaker lugs • Large magnet • Anodized metal surfaces • Braided copper voice coil leads • Paper diaphragm

| Part No. | Mfg. P/N | Dimensions (Dia. " x D") | Input   |         | Impedance (Ω) | Output SPL (dB) | Frequency Range (Hz) | Magnet Size (Dia. " x H") | Pricing |        |        |
|----------|----------|--------------------------|---------|---------|---------------|-----------------|----------------------|---------------------------|---------|--------|--------|
|          |          |                          | Nom (W) | Max (W) |               |                 |                      |                           | 1       | 10     | 100    |
| 135693   | FEB200   | 2.0 x 0.7                | 0.2     | 0.3     | 8             | 82              | 500 – 6000           | 1.3 x 0.5                 | \$1.59  | \$1.45 | \$1.29 |
| 31959    | FEB216   | 2.6 x 0.8                | 0.2     | 0.4     | 16            | 85              | 330 – 8000           | 1.3 x 0.5                 | 2.25    | 1.99   | 1.79   |
| 99996    | FEB204   | 2.6 x 0.9                | 3.0     | 4.0     | 4             | 95              | 300 – 14000          | 1.8 x 0.5                 | 2.49    | 2.25   | 1.99   |



99996 Side



99996 Back

## Flat Element, Square Piezoelectric Speakers

- Excellent for alarms or other voice uses • Stainless steel diaphragm

| Part No. | Mfg. P/N | Dimensions (Dia. " x D") | Input   |         | Impedance (Ω) | Output SPL (dB) | Frequency Range (Hz) | Element Size (Dia. " x H") | Pricing |        |        |
|----------|----------|--------------------------|---------|---------|---------------|-----------------|----------------------|----------------------------|---------|--------|--------|
|          |          |                          | Nom (W) | Max (W) |               |                 |                      |                            | 1       | 10     | 100    |
| 34025    | AZ30S    | 1.2 x 0.2                | 0.4     | 0.8     | 8             | 70              | 1300 – 8000          | 1.2 x 0.1                  | \$1.69  | \$1.52 | \$1.35 |
| 76030    | AZ40S    | 1.6 x 0.2                | 0.4     | 0.8     | 8             | 70              | 600 – 6000           | 1.6 x 0.1                  | 1.95    | 1.75   | 1.49   |
| 673766   | AZ50S    | 1.9 x 0.2                | 0.4     | 0.8     | 8             | 70              | 500 – 6000           | 1.9 x 0.1                  | 2.49    | 2.25   | 1.95   |



34025 Side



34025 Back

## Alnico Speakers

- For computer case use • Paper diaphragm • Wide frequency response • Pre-tinned solder lugs • Large magnet • Impedance: 8Ω

| Part No. | Mfg. P/N | Fig. | Dimensions (Dia. " x D") | Input   |         | Output SPL (dB) | Frequency Range (Hz) | Magnet Size (Dia. " x H") | Pricing |        |        |
|----------|----------|------|--------------------------|---------|---------|-----------------|----------------------|---------------------------|---------|--------|--------|
|          |          |      |                          | Nom (W) | Max (W) |                 |                      |                           | 1       | 10     | 100    |
| 88410    | A0200    | 1    | 2.0 x 0.8                | 0.2     | 0.4     | 87              | 430 – 4500           | 0.5 x 0.4                 | \$1.49  | \$1.29 | \$1.04 |
| 684730   | A0202C   | 1    | 2.6 x 0.9                | 0.5     | 1.0     | 88              | 350 – 5000           | 0.9 x 0.5                 | 1.89    | 1.69   | 1.49   |
| 135765   | RA2425   | 1    | 2.2 x 0.8                | 0.25    | 0.5     | 87              | 400 – 4000           | 0.5 x 0.4                 | 1.89    | 1.69   | 1.52   |
| 111587   | B0102    | 2    | 1.7 x 0.6                | 0.1     | 0.3     | 83              | 500 – 5500           | 0.5 x 0.4                 | 2.09    | 1.69   | 1.39   |
| 135811   | A1527C02 | 3    | 1.6 x 2.8 x 1.2          | 2.0     | 5.0     | 82              | 450 – 20000          | 0.5 x 0.5                 | 2.95    | 2.49   | 2.25   |

Blue Part No. = Limited Quantity Available



Fig. 1

Fig. 2

Fig. 3

## Micro Speakers

Quantity SAVE

| Part No. | Mfg. P/N | Fig. | Dimensions (Dia. " x D") | Input   |         | Output SPL (dB) | Frequency Range (Hz) | Magnet Size (Dia. " x H") | Pricing |        |        |
|----------|----------|------|--------------------------|---------|---------|-----------------|----------------------|---------------------------|---------|--------|--------|
|          |          |      |                          | Nom (W) | Max (W) |                 |                      |                           | 1       | 10     | 100    |
| 355514   | GC0201M  | 1    | 1.70 x 0.38              | 0.1     | 0.2     | 78              | 500 – 20000          | 0.26 x 0.06               | \$1.39  | \$1.12 | \$ .84 |
| 355522   | GF0271M  | 2    | 1.06 x 0.30              | 0.1     | 0.2     | 82              | 500 – 20000          | 0.49 x 0.15               | 2.29    | 2.04   | 1.86   |



Fig. 1

Fig. 2

## Omni-directional Electret Condenser Microphone Cartridges

### Applications:

- Tape recorders, intercoms, hearing aids, telephone and answering devices, sonic controlled toys and sensors • Modems for computers
- Used for recording, testing, and monitoring



160979



136574 & 320178



320004



196488

Lower \$\$\$

| Part No. | Type     | Sensitivity | Impedance | Frequency (Hz) | Max. Op. Volt. (VDC) | Stand Op. Volt. (VDC) | Current (Max.) | Sensitivity Reduction | S/N Ratio | Terminals    | Size (H x Dia.) | Pricing |        |        |        |
|----------|----------|-------------|-----------|----------------|----------------------|-----------------------|----------------|-----------------------|-----------|--------------|-----------------|---------|--------|--------|--------|
|          |          |             |           |                |                      |                       |                |                       |           |              |                 | 1       | 10     | 100    | 1000   |
| 160979   | WM-64PKT | -44 ±3dB    | >2.2kΩ    | 20-16,000      | 10V                  | 2.0V                  | 0.5mA          | -3dB @ 1.5V           | >58dB     | PC pin leads | .10" x .24"     | \$ .72  | \$ .65 | \$ .52 | \$ .35 |
| 136574   | WM-60PC  | -54 ±2dB    | >2.2kΩ    | 20-12,000      | 12V                  | 4.5V                  | 0.5mA          | -3dB @ 3V             | >40dB     | PC pin leads | .30" x .38"     | .53     | .48    | .43    | .39    |
| 320004   | YIML     | -38 ±3dB    | >2.2kΩ    | 20-16,000      | 10V                  | 4.5V                  | 0.8mA          | -3dB @ 3V             | >40dB     | Lead wires   | .23" x .38"     | .69     | .62    | .32    | .24    |
| 320178   | EM-99    | -64 ±2dB    | >2.2kΩ    | 20-12,000      | 12V                  | 4.5V                  | 0.5mA          | -3dB @ 3V             | >40dB     | PC pin leads | .27" x .39"     | 1.49    | 1.25   | .99    | .81    |
| 196488   | JL-061C  | -58 ±3dB    | 2kΩ       | 20-20,000      | 10V                  | 2.0V                  | 0.04mA         | -3dB @ 1.5V           | >55dB     | Solder pad   | .10" x .24"     | 1.25    | .95    | .85    | .69    |

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Quantity SAVE

## Spacers



## Aluminum Round Spacers

- Iridite clear finish
- Blue P/N = Limited Quantity
- 3/16" OD, #4 ID (0.115")
- \* Minimum order 10 pieces

| Part No. | Product No. | Length | 1   | 10      | 100     | 1000    |
|----------|-------------|--------|-----|---------|---------|---------|
| 392851   | 1107-4-A-7  | 1/8"   | *   | \$ .177 | \$ .169 | \$ .159 |
| 392869   | 1108-4-A-7  | 3/16"  | .22 | .195    | .186    | .176    |
| 392876   | 1109-4-A-7  | 1/4"   | .20 | .194    | .19     | .185    |
| 392884   | 1110-4-A-7  | 5/16"  | .26 | .214    | .203    | .193    |
| 392892   | 1111-4-A-7  | 3/8"   | .26 | .214    | .203    | .193    |
| 392906   | 1112-4-A-7  | 7/16"  | .34 | .288    | .274    | .26     |
| 392921   | 1115-4-A-7  | 5/8"   | .30 | .242    | .23     | .218    |
| 392930   | 1116-4-A-7  | 11/16" | .44 | .37     | .35     | .263    |
| 392948   | 1117-4-A-7  | 3/4"   | .33 | .279    | .265    | .252    |

## 1/4" OD, #4 ID (0.115")

| Part No. | Product No. | Length | 1     | 10     | 100    | 1000   |
|----------|-------------|--------|-------|--------|--------|--------|
| 393051   | 1122-4-A-7  | 1/8"   | \$.24 | \$.205 | \$.194 | \$.146 |
| 393061   | 1123-4-A-7  | 3/16"  | .24   | .205   | .194   | .185   |
| 393078   | 1124-4-A-7  | 1/4"   | .24   | .205   | .194   | .185   |
| 393086   | 1125-4-A-7  | 5/16"  | .24   | .205   | .164   | .123   |
| 393095   | 1126-4-A-7  | 3/8"   | .30   | .242   | .23    | .218   |
| 393107   | 1127-4-A-7  | 7/16"  | .39   | .326   | .309   | .232   |
| 393115   | 1128-4-A-7  | 1/2"   | .30   | .242   | .23    | .173   |
| 393123   | 1133-4-A-7  | 13/16" | .39   | .326   | .309   | .232   |
| 393131   | 1134-4-A-7  | 7/8"   | .39   | .326   | .309   | .232   |
| 393140   | 1136-4-A-7  | 1"     | .39   | .326   | .309   | .232   |

## 1/4" OD, #6 ID (0.140")

| Part No. | Product No. | Length | 1     | 10     | 100    | 1000   |
|----------|-------------|--------|-------|--------|--------|--------|
| 393254   | 1122-6-A-7  | 1/8"   | \$.24 | \$.205 | \$.194 | \$.185 |
| 393262   | 1123-6-A-7  | 3/16"  | .24   | .205   | .194   | .185   |
| 393272   | 1124-6-A-7  | 1/4"   | .24   | .205   | .194   | .185   |
| 393290   | 1125-6-A-7  | 5/16"  | .24   | .205   | .194   | .185   |
| 393298   | 1126-6-A-7  | 3/8"   | .30   | .242   | .23    | .218   |
| 393300   | 1127-6-A-7  | 7/16"  | .39   | .326   | .309   | .232   |
| 393318   | 1128-6-A-7  | 1/2"   | .30   | .242   | .23    | .218   |
| 393326   | 1133-6-A-7  | 13/16" | .39   | .326   | .309   | .294   |
| 393335   | 1134-6-A-7  | 7/8"   | .39   | .326   | .309   | .294   |

## Brass Round Spacers

- Zinc clear chromate finish

## 1/4" OD, #6 ID (0.140")

| Part No. | Product No. | Length | 1     | 10     | 100    | 1000   |
|----------|-------------|--------|-------|--------|--------|--------|
| 393352   | 1122-6-B-12 | 1/8"   | \$.24 | \$.205 | \$.194 | \$.185 |

## Washer-Face Aluminum

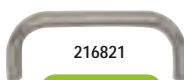


Quantity SAVE

| Part No. | Product No. | Thread | Thread Length | Length | 1      | 10     | 100    | 1000   |
|----------|-------------|--------|---------------|--------|--------|--------|--------|--------|
| 393976   | 7100-A      | 4-40   | 5/16"         | 5/8"   | \$1.55 | \$1.47 | \$1.40 | \$1.33 |
| 393984   | 7101-A      | 4-40   | 3/8"          | 11/16" | 1.55   | 1.47   | 1.40   | 1.33   |
| 393992   | 7105-A      | 4-40   | 1/2"          | 13/16" | 1.55   | 1.47   | 1.40   | 1.33   |
| 394004   | 7106-A      | 8-32   | 3/8"          | 11/16" | 1.69   | 1.61   | 1.53   | 1.45   |
| 394011   | 7107-A      | 8-32   | 1/2"          | 13/16" | 1.75   | 1.58   | 1.26   | .94    |
| 394020   | 7109-A      | 10-32  | 3/8"          | 11/16" | 1.69   | 1.52   | 1.22   | .92    |
| 394038   | 7111-A      | 10-32  | 5/8"          | 15/16" | 1.75   | 1.66   | 1.58   | 1.50   |
| 394046   | 7112-A      | 1/4-20 | 3/8"          | 3/4"   | 1.79   | 1.61   | 1.29   | .97    |

## Instrumentation Handles

- 216821:
- Material: brass, nickel plate
- Oval diameter: 5/8"
- Internal thread size: 10-32



Quantity SAVE

- 457801: • Material: Aluminum

- Oval diameter: 1/4" • Internal thread size: 6-32

| Part No. | Size (L" x H" x T") | 1      | 10     | 100    |
|----------|---------------------|--------|--------|--------|
| 216821   | 3.0 x 1.3 x 0.3     | \$2.49 | \$2.12 | \$1.59 |
| 457801   | 3.0 x 1.0 x 0.4     | 2.19   | 1.76   | 1.32   |

RoHS compliant product

This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

Color Code Legend

New Sale Lower\$ QtySave

## Standoffs

Quantity SAVE

## Male-Female Hex Aluminum Standoffs

- Iridite clear finish
- 3/16" Hex, 4-40 Thread
- Thread length: 1/4"



| Part No. | Product No.  | Length | 1     | 10     | 100    | 1000   |
|----------|--------------|--------|-------|--------|--------|--------|
| 393458   | 4501-440-A-7 | 1/4"   | \$.35 | \$.298 | \$.283 | \$.269 |
| 393466   | 4503-440-A-7 | 3/8"   | .35   | .298   | .283   | .269   |
| 393474   | 4505-440-A-7 | 1/2"   | .35   | .298   | .283   | .269   |
| 393491   | 4509-440-A-7 | 3/4"   | .39   | .326   | .309   | .294   |
| 393503   | 4513-440-A-7 | 1"     | .39   | .326   | .309   | .294   |

## 3/16" Hex, 6-32 Thread

- Thread length: 3/8"

| Part No. | Product No.  | Length | 1     | 10     | 100    | 1000   |
|----------|--------------|--------|-------|--------|--------|--------|
| 393537   | 4501-632-A-7 | 1/4"   | \$.38 | \$.328 | \$.311 | \$.296 |
| 393546   | 4503-632-A-7 | 3/8"   | .35   | .298   | .283   | .269   |
| 393554   | 4505-632-A-7 | 1/2"   | .35   | .298   | .283   | .269   |
| 393571   | 4509-632-A-7 | 3/4"   | .39   | .326   | .309   | .294   |
| 393588   | 4513-632-A-7 | 1"     | .39   | .326   | .309   | .294   |

## Male-Female Hex Brass Standoffs

- Zinc clear chromate finish

Quantity SAVE

## 1/4" Hex, 4-40 Thread

- Thread length: 3/16"
- Blue P/N = Limited Quantity

| Part No. | Product No.   | Length | 1     | 10    | 100   | 1000  |
|----------|---------------|--------|-------|-------|-------|-------|
| 393837   | 4530-440-B-12 | 1/4"   | \$.73 | \$.61 | \$.58 | \$.55 |
| 393844   | 4532-440-B-12 | 3/8"   | .75   | .63   | .60   | .57   |
| 393852   | 4534-440-B-12 | 1/2"   | .81   | .69   | .65   | .62   |
| 393861   | 4536-440-B-12 | 5/8"   | .83   | .75   | .60   | .45   |
| 393880   | 4538-440-B-12 | 3/4"   | .78   | .66   | .63   | .60   |
| 393888   | 4542-440-B-12 | 1"     | .78   | .66   | .63   | .60   |
| 393895   | 4546-440-B-12 | 1-1/4" | .85   | .77   | .62   | .465  |
| 393909   | 4550-440-B-12 | 1-1/2" | 1.24  | 1.05  | 1.00  | .95   |

## 1/4" Hex, 6-32 Thread

- Thread length: 3/16"

| Part No. | Product No.   | Length | 1     | 10    | 100    | 1000   |
|----------|---------------|--------|-------|-------|--------|--------|
| 393916   | 4530-632-B-12 | 1/4"   | \$.73 | \$.66 | \$.528 | \$.396 |
| 393924   | 4532-632-B-12 | 3/8"   | .75   | .63   | .60    | .57    |
| 393932   | 4534-632-B-12 | 1/2"   | .81   | .73   | .58    | .435   |
| 393941   | 4538-632-B-12 | 3/4"   | .78   | .70   | .56    | .42    |
| 393959   | 4542-632-B-12 | 1"     | .78   | .70   | .56    | .42    |
| 393968   | 4546-632-B-12 | 1-1/4" | .85   | .72   | .68    | .65    |

## Thumbscrews



Quantity SAVE

## Plain Aluminum

| Part No. | Product No. | Thread | Thread Length | Length | 1      | 10     | 100    | 1000   |
|----------|-------------|--------|---------------|--------|--------|--------|--------|--------|
| 394055   | 7120-A      | 4-40   | 5/16"         | 1/2"   | \$1.55 | \$1.47 | \$1.40 | \$1.33 |
| 394063   | 7125-A      | 6-32   | 3/8"          | 9/16"  | 1.49   | 1.42   | 1.35   | 1.28   |
| 394071   | 7128-A      | 8-32   | 3/8"          | 9/16"  | 1.65   | 1.49   | 1.19   | .89    |
| 394089   | 7135-A      | 10-32  | 1/2"          | 11/16" | 1.69   | 1.52   | 1.22   | .92    |
| 394097   | 7138-A      | 1/4-20 | 1/2"          | 3/4"   | 1.79   | 1.61   | 1.29   | .97    |
| 394100   | 7140-A      | 1/4-20 | 5/8"          | 7/8"   | 1.85   | 1.76   | 1.67   | 1.59   |

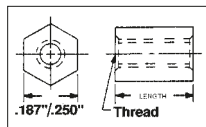
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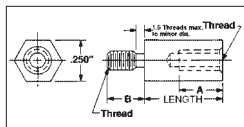
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Hex  
.187\"/>

.187\"/&gt;



.250\"/&gt;

## Aluminum &amp; Brass Threaded Standoffs

† Finish: Iridite (clear)<sup>1</sup> per MIL-C-5541-D;  
bright tin plate<sup>2</sup>; stainless steel<sup>3</sup>

Quantity SAVE

Hex  
.250\"/>

## .250\"/&gt;

## 4-40 Thread (Fig. 2) (Thread A: .250\"/&gt;

| Part Number | Metal†             | Hex Length | Pricing |       |       |       |
|-------------|--------------------|------------|---------|-------|-------|-------|
|             |                    |            | 1       | 10    | 100   | 1000  |
| 77586       | Alum <sup>1</sup>  | .250"      | \$.32   | \$.29 | \$.21 | \$.16 |
| 77593       | Alum <sup>2</sup>  | .375"      | .43     | .387  | .31   | .233  |
| 111755      | Alum <sup>2</sup>  | .500"      | .49     | .44   | .36   | .20   |
| 139213      | Alum <sup>2</sup>  | .625"      | .43     | .39   | .35   | .31   |
| 139222      | Alum <sup>1</sup>  | .75"       | .43     | .39   | .35   | .21   |
| 139231      | Alum <sup>1</sup>  | 1.00"      | .49     | .44   | .36   | .30   |
| 128566      | Alum <sup>1</sup>  | 1.25"      | .59     | .53   | .44   | .38   |
| 166545      | Alum <sup>2</sup>  | 1.50"      | .75     | .65   | .59   | .49   |
| 618020      | Steel <sup>3</sup> | 1.50"      | .79     | .69   | .63   | .53   |

## .250\"/&gt;

## 6-32 Thread (Fig. 2) (Thread A: .375\"/&gt;

| Part Number | Metal†             | Hex Length | Pricing |       |       |      |
|-------------|--------------------|------------|---------|-------|-------|------|
|             |                    |            | 1       | 10    | 100   | 1000 |
| 133542      | Alum <sup>1</sup>  | .250"      | \$.39   | \$.35 | \$.21 |      |
| 133568      | Alum <sup>1</sup>  | .375"      | .39     | .35   | .22   |      |
| 77607       | Alum <sup>1</sup>  | .500"      | .32     | .29   | .23   |      |
| 77623       | Alum <sup>1</sup>  | .750"      | .39     | .35   | .28   |      |
| 77650       | Alum <sup>1</sup>  | 1.000"     | .44     | .40   | .32   |      |
| 206623      | Steel <sup>3</sup> | 1.250"     | 1.39    | 1.25  | 1.09  |      |

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| Part Number | Metal†             | Hex Length | Pricing |       |       |  |
|-------------|--------------------|------------|---------|-------|-------|--|
|             |                    |            | 10      | 100   | 1000  |  |
| 175636      | Brass <sup>2</sup> | .187"      | \$.21   | \$.15 | \$.10 |  |
| 102795      | Brass <sup>2</sup> | .240"      | .21     | .15   | .10   |  |
| 133612      | Alum <sup>2</sup>  | .250"      | .20     | .14   | .11   |  |
| 133640      | Alum <sup>1</sup>  | .500"      | .22     | .20   | .11   |  |
| 139791      | Alum <sup>2</sup>  | .562"      | .19     | .162  | .122  |  |
| 133648      | Alum <sup>1</sup>  | .625"      | .14     | .13   | .115  |  |
| 133656      | Alum <sup>1</sup>  | .750"      | .43     | .39   | .23   |  |
| 139185      | Alum <sup>1</sup>  | 1.000"     | .43     | .39   | .32   |  |

Blue Part No. = Limited Quantity Available

## .250\"/&gt;

## 4-40 Thread (Fig. 1) .250\"/&gt;

\* 10 piece minimum

| Part Number | Metal†            | Hex Length | Pricing |       |        |      |
|-------------|-------------------|------------|---------|-------|--------|------|
|             |                   |            | 1       | 10    | 100    | 1000 |
| 139193      | Alum <sup>1</sup> | .250"      | \$.16   | \$.12 | \$.082 |      |
| 77501       | Alum <sup>1</sup> | .375"      | .22     | .20   | .15    | .09  |
| 134763      | Alum <sup>1</sup> | .437"      | .24     | .21   | .18    | .15  |
| 108371      | Alum <sup>1</sup> | .500"      | .28     | .25   | .17    | .10  |
| 77519       | Alum <sup>1</sup> | .625"      | .42     | .35   | .19    | .14  |
| 133605      | Alum <sup>1</sup> | .750"      | .39     | .35   | .19    | .14  |
| 139206      | Alum <sup>1</sup> | 1.000"     | .49     | .35   | .25    | .15  |

## .250\"/&gt;

## 6-32 Thread (Fig. 1) .250\"/&gt;

\* 10 piece minimum

| Part Number | Metal†            | Hex Length | Pricing |       |       |       |
|-------------|-------------------|------------|---------|-------|-------|-------|
|             |                   |            | 1       | 10    | 100   | 1000  |
| 77535       | Alum <sup>1</sup> | .250"      | \$.25   | \$.22 | \$.14 | \$.08 |
| 133592      | Alum <sup>1</sup> | .375"      | .32     | .29   | .13   | .09   |
| 77543       | Alum <sup>1</sup> | .500"      | .25     | .22   | .17   | .10   |
| 77552       | Alum <sup>1</sup> | .625"      | .28     | .25   | .19   | .14   |
| 77570       | Alum <sup>1</sup> | .750"      | .31     | .28   | .21   | .13   |
| 77578       | Alum <sup>1</sup> | 1.000"     | .59     | .35   | .30   | .16   |
| 143408      | Alum <sup>1</sup> | 1.500"     | .69     | .61   | .49   | .42   |
| 143441      | Alum <sup>1</sup> | 1.750"     | .79     | .59   | .48   | .41   |

## 3M

These durable, pressure sensitive, adhesive-backed urethane bumpers provide many high performance advantages: adhere quickly and stay in place on a variety of surfaces, resist marring and staining on surfaces, and give excellent skid and abrasion resistance.



## Adhesive Rubber Feet

## PCB Standoff Mounting Hardware

Quantity SAVE

SALE

- Snap "on"
- Nylon
- 291987: with thread
- 10 piece minimum

| Part No. | Cross Ref. No. | Dimensions         | Holes     | 10    | 100   | 1000  |
|----------|----------------|--------------------|-----------|-------|-------|-------|
| 28337    | PCST           | 1.2"L x 0.6"W      | 0.2"      | \$.12 | \$.07 | \$.04 |
| 129252   | PCST2          | 0.9"L x 0.4"Dia.   | 0.2"/0.3" | .18   | .11   | .075  |
| 148056   | PCST3          | 0.8"L x 0.5"W      | 0.1"/0.2" | .09   | .077  | .058  |
| 156831   | KCS10          | 0.68"L x 0.32"Dia. | 0.14"     | .125  | .093  | .073  |
| 291961   | ACBS-6         | 0.75"L x 0.5"W     | 0.1"/0.2" | .122  | .052  | .029  |
| 291987   | CASE-45-50     | 0.85"L x 0.3"Dia.  | 0.2"      | .126  | .083  | .053  |
| 292015   | SCB-6          | 0.7"L x 0.27"Dia.  | 0.1"/0.2" | .162  | .138  | .117  |



## Bumpon™ Protective Products

| Part No. | Product No.  | Type                  | Fig. | Pack | W" x H"   | 1      | 10     | 50     |
|----------|--------------|-----------------------|------|------|-----------|--------|--------|--------|
| 142658   | SJ5012BLKC   | Black cylindrical     | 1    | 100  | .50 x .14 | \$5.95 | \$5.35 | \$4.86 |
| 142771   | SJ5008BLKC   | Black square          | 2    | 100  | .50 x .12 | 6.69   | 4.76   | 4.29   |
| 142682   | SJ5018BLKC   | Black square          | 3    | 100  | .50 x .23 | 9.95   | 8.25   | 7.04   |
| 126981   | SJ5023BLK4   | Black square          | 4    | 4    | .81 x .30 | 1.95   | 1.75   | 1.59   |
| 142666   | SJ5023BLKC   | Black square          | 4    | 100  | .81 x .30 | 14.25  | 11.21  | 10.09  |
| 651891   | SJ5201BRN132 | Brown hexagon die cut | 5    | 132  | .43 x .13 | 7.25   | 6.44   | 5.78   |
| 651903   | SJ5302CLR96  | Clear hemisphere      | 6    | 96   | .31 x .09 | 7.25   | 6.44   | 5.78   |
| 651911   | SJ5312CLR56  | Clear cylindrical     | 7    | 56   | .50 x .14 | 7.25   | 6.44   | 5.78   |
| 651920   | SJ5412WHT56  | White cylindrical     | 7    | 56   | .50 x .14 | 7.25   | 6.44   | 5.78   |
| 651938   | SJ6553CLR132 | Clear hexagonal cone  | 8    | 132  | .43 x .12 | 8.15   | 7.21   | 6.48   |



135394 - Electrolytic



135271 - LEDs



169578 - Photocells



18294 - Toy Motors



149649 - Fans



55968 - Spacers



319600 - Cabinet

\* "LB" grab bag quantities and weights are approximate • Opened grab bags are not returnable • Use our 20-drawer cabinet w/ labels to store your components, P/N 319600

Shaded in brown on this page you will find Jameco's nine most popular component Grab Bags. They are all individually bagged, and are combined to make up the Schwab's School Selection (P/N 163213) referenced towards the bottom of the page.

## Capacitors

| Part No. | Cross Ref. No. | Description  | Wt. (lbs.) | 1      | 10     |
|----------|----------------|--|------------|--------|--------|
| 17857    | GB100          | 200 asst. ceramic disc capacitors  | 0.2        | \$4.95 | \$4.49 |
| 135335   | GB100LB*       | 1 lb. (813 pcs) asst. ceramic disc caps  | 1.0        | 12.95  | 11.49  |
| 135458   | GB101LB*       | 1 lb. (440 pcs) asst. mylar capacitors   | 1.0        | 14.95  | 13.49  |
| 17911    | GB102          | 100 assorted electrolytic capacitors radial, axial, snap                       | 0.5        | 4.95   | 4.49   |
| 135394   | GB102LB*       | 1.5 lb. assorted (300 pcs) electrolytic caps radial, axial, snap (photo above) | 1.5        | 12.95  | 11.49  |
| 17945    | GB103          | 100 assorted tantalum capacitors (dipped epoxy and solid tubular)              | 0.1        | 9.95   | 8.95   |

## Diodes, Transistors and Crystals/Oscillators

| Part No. | Cross Ref. No. | Description                                     | Wt. (lbs.) | 1      | 10     | 25     |
|----------|----------------|---|------------|--------|--------|--------|
| 17961    | GB107          | 200 assorted diodes (zener, switching, silicon) | 0.1        | \$5.95 | \$5.35 | \$4.79 |
| 18171    | GB127          | 100 assorted transistors (NPN, PNP, power)      | 0.1        | 5.95   | 5.35   | 4.79   |
| 114446   | GB150          | 50 assorted crystals/oscillators                | 0.2        | 7.95   | 6.95   | 6.25   |

## Resistors, Trimmers and Potentiometers

| Part No. | Cross Ref. No. | Description   | Wt. (lbs.) | 1      | 10     |
|----------|----------------|---|------------|--------|--------|
| 18104    | GB116          | 200 asst. 1/4W resistors (5&10%)  | 0.1        | \$5.49 | \$4.95 |
| 135351   | GB116LB*       | 1 lb. (2000 pcs) asst. 1/4W resistors                                   | 1.0        | 14.95  | 13.49  |
| 18139    | GB117          | 200 asst. 1/2W resistors (5&10%)  | 0.2        | 5.95   | 5.35   |
| 18075    | GB113          | 100 asst. 1/10W to 1/8W trimmer pots (100Ω to 2MΩ values)               | 0.1        | 5.15   | 3.98   |
| 18278    | GB174          | 100 assorted 1/4W & 1/2W single-turn pots (100Ω to 5MΩ assorted values) | 0.2        | 6.95   | 6.25   |

Blue Part No. = Limited Quantity Available

## Integrated Circuits and Sockets

| Part No. | Cross Ref. No. | Description   | Wt. (lbs.) | 1      | 10     |
|----------|----------------|---|------------|--------|--------|
| 17996    | GB108          | 100 assorted 7400, 74LS00 series (74, 74C, 74F, 74S, 74ALS, 74HC, 74HCT)          | 0.2        | \$6.95 | \$6.25 |
| 135280   | GB108LB*       | 1 lb. (400 pcs) asst. 7400, 74LS00 series (74, 74C, 74F, 74S, 74ALS, 74HC, 74HCT) | 1.0        | 19.05  | 18.13  |
| 18024    | GB109          | 100 asst. linear series (LM300, 500, 700, 7800, 7900 reg.) DIP, TO-3, TO-220      | 0.6        | 8.69   | 8.27   |
| 145242   | GB109LB*       | 2 lb. (300 pcs) asst. linear series (LM300, 500, 700, 7800, 7900 reg.)            | 2.0        | 19.05  | 18.12  |
| 114964   | GB171          | 100 asst. microprocessor series (micros, PALS, RAMs, PROMs, EPROMs)               | 0.7        | 12.95  | 11.49  |
| 105620   | GB120          | 100 asst. sockets (DIP IC, PGA)   | 0.3        | 5.95   | 5.35   |
| 135386   | GB120LB*       | 1 lb. (260 pcs) assorted sockets (DIP, PGA, SIMM, SIP, DIN)                       | 1.0        | 12.95  | 11.49  |

## veileman 5mm x 20mm Fast Acting Fuse Kit

- Voltage rating: 250VAC
- Glass cartridge, silver-end caps
- IEC127 / BS4265 / CEE4 specifications
- 100 pieces: 10 ea. of 0.1A, 0.2A, 0.5A, 1A, 1.6A, 2A, 2.5A, 3A, 4A and 5A



| Part No. | Product No. | 1       | 10      | 25      |
|----------|-------------|---------|---------|---------|
| 645343   | K/FF        | \$12.29 | \$11.68 | \$11.09 |

## LEDs, Displays and Photocells

| Part No. | Cross Ref. No. | Description  | Wt. (lbs.) | 1      | 10     | 25     |
|----------|----------------|--|------------|--------|--------|--------|
| 18041    | GB110          | 100 assorted sizes & colored LEDs (T1&T1½ round and rectangular)   | 0.1        | \$6.95 | \$6.29 | \$5.65 |
| 18323    | GB186          | 500 asst. sizes #18041 LEDs  | 0.3        | 19.95  | 17.95  | 15.95  |
| 135271   | GB110LB*       | 1 lb. (1900 pcs) asst. #18041 LEDs                                 | 1.0        | 44.95  | 40.95  | 38.95  |
| 18201    | GB162          | 50 asst. sizes of colored displays (7-segment LED, modules, stick) | 0.5        | 9.95   | 7.45   | 6.69   |
| 169578   | GB125          | 100 asst. values photocells  | 0.2        | 19.95  | 18.49  | 16.95  |

## Switches, Toy Motors and Fans

| Part No. | Cross Ref. No. | Description  | Wt. (lbs.) | 1      | 10     |
|----------|----------------|--|------------|--------|--------|
| 18235    | GB165          | 50 assorted switches (toggle, pushbutton, rocker, slide) | 0.4        | \$8.75 | \$7.69 |
| 135378   | GB165LB*       | 1 lb. (135 pcs) asst. #18235 switches                    | 1.0        | 18.95  | 16.95  |
| 18294    | GB182          | 5 asst. toy DC motors (1.5-24V)                          | 1.1        | 5.49   | 4.95   |
| 149649   | GB193          | 5 asst. AC&DC fans (photo above)                         | 4.5        | 8.75   | 7.69   |

## Hardware Assortments

- 2-56
- Screws
- Steel
- 4-40
- Plastic
- Brass
- 6-32
- Nuts
- Lock Washers
- 8-32
- Washers
- Aluminum



| Part No. | Cross Ref. No. | Description   | Wt. (lbs.) | 1      | 10     | 25     |
|----------|----------------|---|------------|--------|--------|--------|
| 171571   | GB149*         | 1 lb. (500 pcs) asst. types of screws, nuts, washers & lock washers | 1.0        | \$5.95 | \$5.35 | \$4.79 |
| 171635   | GB149LB*       | 3 lbs. (1400 pcs) asst. types; same as P/N 171571 (above)           | 3.0        | 12.95  | 11.49  | 9.95   |

## Spacers and Standoffs Assortments

- Round
- Hex
- Aluminum
- Brass
- Steel
- Plastic
- Nylon

| Part No. | Cross Ref. No. | Description  | Wt. (lbs.) | 1       | 10      | 25      |
|----------|----------------|--|------------|---------|---------|---------|
| 166481   | GB440          | 100 asst. 4-40 spacers/standoffs                               | 0.5        | \$12.95 | \$12.49 | \$11.49 |
| 166490   | GB632          | 100 asst. 6-32 spacers/standoffs                               | 0.5        | 16.95   | 15.49   | 13.95   |
| 55968    | GB140          | 100 asst. 4-40, 6-32, 8-32 round/hex, alum/brass/nylon spacers | 0.3        | 17.95   | 16.49   | 14.95   |
| 135423   | GB140LB*       | 1 lb. (310 pcs) same as P/N 55968                              | 1.0        | 34.95   | 31.95   | 28.00   |

## Schwab's School Selection

\$67.89 Value

Jameco's nine most popular Grab Bags (highlighted on this page) are all individually bagged. North Dakota Engineer, Loren Schwab, recommended this selection of products as a standard item. He also recommended a 20-drawer component cabinet with labels (319600, see photo above) for storage.

**Includes:** Ceramic and electrolytic capacitors, diodes, transistors, potentiometers, LEDs, 1/4W resistors, switches, spacers and standoffs.



What's your suggestion?

| Part No. | Cross Ref. No. | Description                 | Wt. (lbs.) | 1       | 10      |
|----------|----------------|-----------------------------|------------|---------|---------|
| 163213   | GB197          | Schwab's School Selection   | 3.3        | \$39.95 | \$34.95 |
| 319600   | GB197          | 20 drawer component cabinet | 4.7        | 15.95   | 13.95   |

## Jameco's Got The Docs

We offer free technical documents for most of the products we carry. Find them easily on the product specification pages at [www.Jameco.com](http://www.Jameco.com)



# DC Brushless Fans



RoHS Compliant Product  
RoHS Also Available

Details  
on Page 1

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |



355493



311968

Call for additional OEM PRICING – we carry major manufacturers.

- Low profile
- Ball and sleeve bearings
- Power input by lead wires or terminals
- PBT black thermo plastic frame and impeller
- Agency approved
- Low power consumption
- Low acoustical noise rating

NEW



Quantity SAVE



249375



354933

| Part Number | Manufacturer | Product Number              | Voltage (VDC) | Size (W" x H" x D") | Air Flow (CFM) | Bearing | Current (mA) | Power (Watts) | Agency Approvals  | Noise (dBA) | Connection (Leads) | Pricing |        |        |        |
|-------------|--------------|-----------------------------|---------------|---------------------|----------------|---------|--------------|---------------|-------------------|-------------|--------------------|---------|--------|--------|--------|
|             |              |                             |               |                     |                |         |              |               |                   |             |                    | 1       | 10     | 50     | 100    |
| 131247      | Adda         | AD0205LX-G50                | 5             | 1.00 x 1.00 x 0.40  | 1.8            | Sleeve  | 100          | 0.5           | UL/CSA/CE         | 15.6        | 5.5"               | \$8.49  | \$7.64 | \$7.01 | \$6.38 |
| 206157      | Sunon        | KDE0502PFB3-B               | 5             | 1.00 x 1.00 x 0.40  | 1.8            | Ball    | 60           | 0.3           | UL/CSA/TUV/CE     | 23          | 5"                 | 11.95   | 10.76  | 8.60   | 6.45   |
| 695050      | Sunon        | GM0502PFV2-8                | 5             | 1.00 x 1.00 x 0.40  | 3              | Vapo    | 80           | 0.4           | UL/CUL            | 16          | 5.5"               | 10.95   | 9.85   | 8.69   | 7.75   |
| 1536931     | Sunon        | KDE0504PFV2                 | 5             | 1.60 x 1.60 x 0.40  | 7              | Sleeve  | 140          | 0.7           | UL/CUL/TUV        | 27          | 12"                | 4.95    | 4.49   | 3.95   | 3.49   |
| 687789      | Sunon        | KDE0504PKB3                 | 5             | 1.60 x 1.60 x 0.80  | 6.2            | Ball    | 140          | 0.7           | UL/CUL            | 24          | 11"                | 7.95    | 7.15   | 6.29   | 5.29   |
| 207061      | Adda         | AD0505MB-G90                | 5             | 2.00 x 2.00 x 0.40  | 10.5           | Ball    | 120          | 0.7           | UL/CSA/CE         | 24          | 11"                | 7.95    | 6.95   | 6.25   | 5.59   |
| 355493      | Sunon        | KD0506PTS3                  | 5             | 2.36 x 2.36 x 1.00  | 15.9           | Sleeve  | 230          | 1.2           | UL/CUL/CE         | 26.7        | 6.5" w/ conn.      | 8.19    | 7.37   | 5.89   | 4.42   |
| 212783      | Sunon        | KDE1203PFB1-8               | 12            | 1.18 x 1.18 x 0.40  | 3.5            | Ball    | 75           | 0.9           | UL/CUL/TUV/CE/VDE | 27          | 5.9"               | 10.95   | 8.50   | 7.85   | 6.95   |
| 212760      | Sunon        | KDE1235PFB1-8               | 12            | 1.40 x 1.40 x 0.40  | 5.2            | Ball    | 80           | 1.0           | UL/CUL/TUV/CE/VDE | 25          | 5.9"               | 11.95   | 10.76  | 9.68   | 8.06   |
| 191476      | Commonwealth | FP-108HX/DC                 | 12            | 1.60 x 1.60 x 0.40  | 4.0            | Sleeve  | 60           | 0.72          | UL/CSA/TUV/CE     | 25          | 12"                | 4.95    | 4.49   | 3.95   | 3.55   |
| 210797      | Sunon        | KD1204PFB3H                 | 12            | 1.60 x 1.60 x 0.40  | 4.7            | Ball    | 50           | 0.6           | UL/CUL/TUV/CE     | 24          | 14"                | 6.95    | 6.25   | 5.59   | 4.95   |
| 355418      | ReliaPro     | JR-DCF1241010S1             | 12            | 1.60 x 1.60 x 0.40  | 5.2            | Sleeve  | 60           | 0.72          | UL/CUL/TUV/CE     | 22.6        | 11.5"              | 3.25    | 2.88   | 2.30   | 1.73   |
| 279611      | Toyo         | T401012VH                   | 12            | 1.60 x 1.60 x 0.40  | 5.8            | Ball    | 90           | 1.1           | UL/CUL/TUV/CE     | 33.5        | 12"                | 5.95    | 5.29   | 4.29   | 3.19   |
| 189691      | Sunon        | KD1204PFS1-8                | 12            | 1.60 x 1.60 x 0.40  | 6.6            | Sleeve  | 60           | 0.7           | UL/CUR/TUV/CE     | 30          | 12"                | 7.95    | 7.16   | 5.72   | 4.29   |
| 212717      | Sunon        | KDE1204PFB2-H               | 12            | 1.60 x 1.60 x 0.40  | 6.5            | Ball    | 90           | 1.1           | UL/CUL/TUV/CE/VDE | 27          | 12"                | 6.65    | 4.95   | 4.36   | 3.95   |
| 311968      | Adda         | AD0412HS-G70                | 12            | 1.60 x 1.60 x 0.40  | 6.7            | Sleeve  | 100          | 1.2           | UL/CUL/TUV/CE     | 25          | 2.5"               | 4.25    | 3.83   | 3.06   | 2.29   |
| 213428      | Adda         | AD0412HB-G76 <sup>1</sup>   | 12            | 1.60 x 1.60 x 0.40  | 6.7            | Ball    | 100          | 1.2           | CE                | 30.2        | 12"/3 leads        | 7.59    | 6.83   | 5.46   | 4.10   |
| 212725      | Sunon        | KDE1204PFV1                 | 12            | 1.60 x 1.60 x 0.40  | 8.3            | Vapo    | 110          | 1.4           | UL/CUL/TUV/CE/VDE | 34.4        | 12"                | 6.65    | 5.98   | 4.79   | 3.59   |
| 136178      | Adda         | AD0412MS-C70                | 12            | 1.60 x 1.60 x 0.80  | 5              | Sleeve  | 110          | 1.32          | UL/CSA            | 23          | 9"                 | 2.95    | 2.64   | 2.38   | 1.78   |
| 195899      | Sunon        | KDE1204PKS2                 | 12            | 1.60 x 1.60 x 0.80  | 6.5            | Sleeve  | 70           | 0.9           | UL/CSA/TUV        | 25.5        | 12"                | 7.95    | 7.16   | 5.72   | 4.29   |
| 279620      | Toyo         | T402012H                    | 12            | 1.60 x 1.60 x 0.80  | 6.7            | Ball    | 70           | 0.84          | UL/CUL/TUV/CE     | 26.2        | 12"                | 7.29    | 6.56   | 5.25   | 3.94   |
| 206447      | Delta        | DFB0412H                    | 12            | 1.60 x 1.60 x 0.80  | 8.5            | Ball    | 100          | 1.0           | UL/CSA/VDE        | 32          | 8"                 | 7.95    | 7.16   | 6.44   | 5.80   |
| 249375      | Adda         | AD0412HB-C56 <sup>2</sup>   | 12            | 1.60 x 1.60 x 0.80  | 9.2            | Ball    | 100          | 1.1           | UL/CUL/TUV/CE     | 39.3        | 2"                 | 8.95    | 8.06   | 6.44   | 4.83   |
| 687754      | Sunon        | KDE1204PKSX-8               | 12            | 1.60 x 1.60 x 0.80  | 9.5            | Sleeve  | 90           | 1.1           | —                 | 28          | 11"                | 8.49    | 7.59   | 6.79   | 5.95   |
| 206164      | Sunon        | KDE1204PKBX-8               | 12            | 1.60 x 1.60 x 0.80  | 10             | Ball    | 90           | 1.1           | UL/TUV/CE         | 29.4        | 17"                | 8.95    | 8.06   | 7.25   | 4.83   |
| 687771      | Sunon        | KDE1206PFS1                 | 12            | 2.36 x 2.36 x 0.60  | 21             | Sleeve  | 150          | 1.8           | UL/CSA/TUV/CE     | 36          | 10" w/ conn.       | 7.95    | 7.15   | 6.49   | 5.49   |
| 212688      | Sunon        | KDE1245PFB2-H               | 12            | 1.80 x 1.80 x 0.40  | 8.0            | Ball    | 90           | 1.1           | UL/CUL/TUV/CE/VDE | 29          | 12"                | 5.49    | 4.99   | 4.57   | 4.30   |
| 297959      | Delta        | EFB0512HA                   | 12            | 2.00 x 2.00 x 0.40  | 11.4           | Ball    | 150          | 1.8           | UL/CSA/CE/VDE     | 30          | 6" w/ conn.        | 6.29    | 5.66   | 4.53   | 3.40   |
| 139602      | Adda         | AD0512HS-D71                | 12            | 2.00 x 2.00 x 0.60  | 12             | Sleeve  | 100          | 1.2           | UL/CSA/CE         | 29          | 12"                | 7.49    | 6.74   | 5.39   | 4.04   |
| 354933      | Delta        | EFB0612MA                   | 12            | 2.36 x 2.36 x 0.40  | 15.5           | Ball    | 120          | 1.4           | UL/CSA/VDE/CE     | 29          | 12"/3 leads        | 7.99    | 7.17   | 5.75   | 4.31   |
| 687800      | Sunon        | KDE1206PFS1-8               | 12            | 2.36 x 2.36 x 0.40  | 16.5           | Sleeve  | 120          | 1.4           | UL/CUL/TUV        | 34.5        | 11"                | 7.99    | 7.19   | 6.29   | 5.29   |
| 195945      | Adda         | AD612MS-D71GL               | 12            | 2.36 x 2.36 x 0.60  | 14.2           | Sleeve  | 110          | 1.32          | UL/CSA/TUV/CE     | 28.8        | 6"                 | 6.95    | 6.26   | 5.00   | 3.75   |
| 662602      | Panaflo      | FBA06T12H-1BS <sup>3</sup>  | 12            | 2.36 x 2.36 x 0.60  | 16.6           | Sleeve  | 145          | 1.74          | UL/CSA            | 32          | 12"/3 leads        | 9.49    | 6.95   | 6.49   | 5.79   |
| 249069      | Jamicon      | JF0615B1H-000-243           | 12            | 2.36 x 2.36 x 0.60  | 15.7           | Ball    | 170          | 2.04          | UL/CUL/TUV/CE     | 34          | 10.5"              | 8.75    | 7.89   | 7.09   | 6.39   |
| 1537141     | Sunon        | KDE1206PHB1                 | 12            | 2.36 x 2.36 x 0.60  | 21             | Ball    | 150          | 1.8           | UL/CUL/CE         | 37.5        | 12"/3 leads        | 7.95    | 7.15   | 6.49   | 5.95   |
| 175046      | Globe Motors | D24-B08A-04W3-000           | 12            | 2.36 x 2.36 x 0.80  | 10.6           | Ball    | 90           | 0.8           | UL/CSA/TUV/CE     | 22          | 13"                | 6.95    | 6.29   | 5.05   | 3.79   |
| 144161      | Adda         | AD0612LB-C70GL              | 12            | 2.36 x 2.36 x 0.80  | 12.6           | Ball    | 80           | 1.0           | UL/CSA/TUV        | 22.7        | 6"                 | 8.49    | 7.69   | 6.15   | 4.65   |
| 189595      | Sunon        | KD1206PKS2                  | 12            | 2.36 x 2.36 x 0.80  | 16.5           | Sleeve  | 150          | 1.8           | UL/CSA/TUV/CE     | 31          | 12"                | 4.95    | 4.46   | 3.58   | 2.69   |
| 237075      | Nidec        | TA225DC-B33399-55           | 12            | 2.36 x 2.36 x 1.00  | 12             | Ball    | 110          | 1.3           | UL/CSA            | 17.2        | 10"                | 5.95    | 5.36   | 4.82   | 3.62   |
| 689240      | Sunon        | KDE1206PTB1(M) <sup>3</sup> | 12            | 2.36 x 2.36 x 1.00  | 22.5           | Ball    | 170          | 2.0           | UL/CSA/TUV/CE     | 34          | 12"                | 6.15    | 5.59   | 4.95   | 4.39   |
| 136143      | Delta        | SB0612M                     | 12            | 2.36 x 2.36 x 1.00  | 17.7           | Sleeve  | 110          | 1.8           | UL/CSA/VDE        | 26.5        | 5"                 | 5.95    | 5.36   | 4.82   | 4.34   |
| 662645      | Panaflo      | FBA06A12U-1BS <sup>3</sup>  | 12            | 2.36 x 2.36 x 1.00  | 20.5           | Sleeve  | 270          | 2.52          | UL/CSA            | 37          | 12"/3 leads        | 7.49    | 6.95   | 5.95   | 4.49   |
| 102947      | Jamicon      | JF0625S1H                   | 12            | 2.36 x 2.36 x 1.00  | 20.5           | Sleeve  | 230          | 2.7           | UL/CSA/TUV        | 30.5        | 11"                | 6.49    | 5.84   | 4.67   | 3.51   |
| 150422      | Jamicon      | JF0625B1H                   | 12            | 2.36 x 2.36 x 1.00  | 20.5           | Ball    | 230          | 2.7           | UL/CSA/TUV        | 30.5        | 10"                | 6.95    | 6.26   | 5.00   | 4.29   |
| 1536923     | Jamicon      | JF0625B1M                   | 12            | 2.36 x 2.36 x 1.00  | 20.5           | Ball    | 230          | 2.76          | UL/CUL/TUV/CE     | 33.6        | 10"                | 6.95    | 6.49   | 5.75   | 4.95   |
| 195911      | Sunon        | KD1206PTS1                  | 12            | 2.36 x 2.36 x 1.00  | 21.7           | Sleeve  | 190          | 2.3           | UL/CSA/TUV        | 34          | 12"                | 6.49    | 5.84   | 5.26   | 4.73   |
| 689207      | Sunon        | KDE1206PTB3                 | 12            | 2.36 x 2.36 x 1.00  | 16             | Ball    | 70           | .80           | UL/CSA/TUV/CE     | 26          | 12"                | 5.95    | 5.35   | 4.79   | 4.29   |
| 395508      | Sanyo        | 109R0612S402                | 12            | 2.36 x 2.36 x 1.00  | 23             | Ball    | 170          | 2.04          | UL/CSA/TUV        | 33          | 6"                 | 5.95    | 5.36   | 4.28   | 3.21   |
| 401269      | Delta        | AFB0812LB                   | 12            | 3.15 x 3.15 x 0.60  | 24.7           | Ball    | 140          | 1.68          | UL/CSA/TUV        | 27.5        | 10"                | 9.35    | 6.81   | 6.40   | 4.80   |
| 109082      | Adda         | AD0812HS-D71                | 12            | 3.15 x 3.15 x 0.60  | 29             | Sleeve  | 190          | 2.3           | UL/CSA/TUV/CE     | 31.4        | 12"                | 9.95    | 8.99   | 8.09   | 7.25   |
| 141920      | Adda         | AD0812HB-C70                | 12            | 3.15 x 3.15 x 0.80  | 27.3           | Ball    | 240          | 2.9           | UL/CSA/CE         | 34          | 12"                | 6.35    | 5.95   | 5.75   | 5.55   |
| 1537301     | Panaflo      | FBA08A12L                   | 12            | 3.15 x 3.15 x 1.00  | 24             | Sleeve  | 68           | 0.82          | UL/CSA            | 21          | 11.5"              | 7.95    | 7.49   | 6.59   | 5.25   |
| 1537281     | Panaflo      | FBA08T12H                   | 12            | 3.15 x 3.15 x 0.60  | 33.5           | Sleeve  | 200          | 2.4           | UL/CSA            | 34          | 12"                | 8.95    | 8.49   | 7.49   | 5.95   |
| 16994       | Various      | FAN7315SL <sup>4*</sup>     | 12            | 3.15 x 3.15 x 1.00  | 25-40          | Sleeve  | 120-200      | 1-2           | UL/CSA            | 25          | 4-12"              | 6.95    | 6.26   | 5.00   | 3.75   |
| 75361       | Various      | FAN6315BL <sup>*</sup>      | 12            | 3.15 x 3.15 x 1.00  | 25-40          | Ball    | 120-200      | 1-2           | UL/CSA            | 25          | 4-12"              | 5.95    | 5.36   | 4.28   | 3.21   |
| 688597      | NMB          | 3110GL-B4W-B19              | 12            | 3.15 x 3.15 x 1.00  | 24.7           | Ball    | 100          | 1.2           | UL/CSA/TUV/CE     | 22          | 7" w/ conn.        | 6.95    | 6.25   | 5.49   | 4.69   |
| 234895      | Adda         | AD0812LB-A70GL              | 12            | 3.15 x 3.15 x 1.00  | 27.6           | Ball    | 120          | 1.44          | UL/CSA/TUV/CE     | 22.5        | 11.5"              | 8.19    | 6.39   | 5.89   | 5.49   |
| 286926      | Toyo         | USTF802512-MW               | 12            | 3.15 x 3.15 x 1.00  | 29             | Ball    | 180          | 2.16          | UL/CSA/CE/VDE     | 24.8        | 4.5"               | 6.99    | 6.29   | 5.03   | 3.77   |
| 154289      | Sunon        | KDE1208PTS3-B               | 12            | 3.15 x 3.15 x 1.00  | 29.4           | Sleeve  | 120          | 1.4           | UL/CSA/TUV/CE     | 24.5        | 5.5"               | 7.49    | 6.79   | 5.95   | 4.95   |

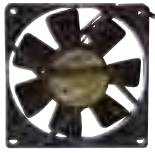
<sup>1</sup> 213428: ATX PC type <sup>2</sup> 249375: Speed sensor <sup>3</sup> 662602/662645: Locked rotor alarm sensor <sup>4</sup> 16994: Replacement for PC/XT computer power supply fan \* Manufacturer & specifications may vary

Blue Part No. = Limited Quantity Available

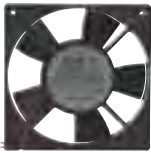
RoHS compliant product

This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.



234895



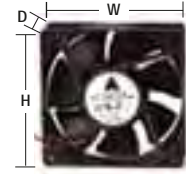
227901

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- Low acoustical noise rating



**NEW**  
**Quantity SAVE**



163619




213567

| Part Number | Manufacturer    | Product Number               | Voltage (VDC) | Size (W" x H" x D") | Air Flow (CFM) | Bearing | Current (mA) | Power (Watts) | Agency Approvals  | Noise (dBA) | Connection (Leads) | Pricing |        |        |        |
|-------------|-----------------|------------------------------|---------------|---------------------|----------------|---------|--------------|---------------|-------------------|-------------|--------------------|---------|--------|--------|--------|
|             |                 |                              |               |                     |                |         |              |               |                   |             |                    | 1       | 10     | 50     | 100    |
| 123530      | Adda            | AD0812MS-A70GL               | 12            | 3.15 x 3.15 x 1.00  | 32             | Sleeve  | 150          | 1.8           | UL/CSA/TUV        | 28.3        | 12"                | \$6.95  | \$6.26 | \$5.00 | \$3.75 |
| 265578      | Yate Loon       | D80SH-12                     | 12            | 3.15 x 3.15 x 1.00  | 33             | Ball    | 190          | 2.28          | UL/CUL/TUV/CE     | 35          | 5"                 | 5.29    | 4.76   | 3.81   | 2.86   |
| 1537387     | Sunon           | KD1208PTB2                   | 12            | 3.15 x 3.15 x 1.00  | 37             | Ball    | 110          | 1.3           | UL/CUL/TUV/CE     | 32          | 11.5" w/ conn.     | 8.95    | 8.09   | 7.49   | 6.95   |
| 662661      | Panaflo         | FBA0812H1BS <sup>1</sup>     | 12            | 3.15 x 3.15 x 1.00  | 39.6           | Sleeve  | 250          | 2.08          | UL/CSA            | 32          | 12"/3 leads        | 7.95    | 6.95   | 5.49   | 4.49   |
| 206181      | Sunon           | KDE1208PTS1-6                | 12            | 3.15 x 3.15 x 1.00  | 42             | Sleeve  | 220          | 2.6           | UL/CSA/TUV/CE     | 34          | 9"                 | 5.95    | 5.39   | 4.85   | 4.35   |
| 355401      | ReliaPro        | JR-DCF128025B1               | 12            | 3.15 x 3.15 x 1.00  | 42             | Ball    | 230          | 2.8           | UL/CUL/TUV/CE     | 28.6        | 11.5"              | 7.05    | 5.10   | 4.80   | 4.56   |
| 323897      | Mechatronics    | F8025E12B1 <sup>2</sup>      | 12            | 3.15 x 3.15 x 1.00  | 46             | Ball    | 240          | 2.88          | UL/CUL/TUV        | 32          | 3/3 leads          | 6.99    | 5.09   | 4.79   | 4.45   |
| 421526      | Panasonic       | FBA08A12U-1AZ                | 12            | 3.15 x 3.15 x 1.00  | 47             | Sleeve  | 360          | 4.32          | UL/CSA            | 38.2        | 11"                | 6.69    | 6.02   | 4.82   | 3.61   |
| 75441       | Common Wealth   | FP108BDC12VS1                | 12            | 3.63 x 3.63 x 1.00  | 45             | Sleeve  | 320          | 3.1           | UL/CSA/TUV        | 32          | 10"                | 4.55    | 4.07   | 3.67   | 3.29   |
| 196023      | Jamicon         | JF0925B1M                    | 12            | 3.63 x 3.63 x 1.00  | 45.4           | Ball    | 200          | 2.4           | UL/CSA/TUV        | 34          | 10"                | 5.49    | 4.94   | 4.44   | 3.93   |
| 154641      | Nidec           | TA350DC-M3K422-16            | 12            | 3.63 x 3.63 x 1.00  | 48             | Ball    | 290          | 3.5           | UL/CSA            | 43          | 12"                | 7.55    | 6.80   | 5.44   | 4.08   |
| 190984      | Sunon           | KD1209PTB1-6A                | 12            | 3.63 x 3.63 x 1.00  | 51             | Ball    | 220          | 2.6           | UL/CSA/TUV        | 34          | 12"                | 7.25    | 6.52   | 5.22   | 4.56   |
| 162739      | NMB (Smart Fan) | 3610KL-04W-B56 <sup>†</sup>  | 12            | 3.63 x 3.63 x 1.00  | 55             | Ball    | 430          | 3.8           | UL/CSA/VDE/CE     | 37          | 10"/3 leads        | 7.95    | 7.16   | 5.72   | 4.29   |
| 689215      | Sunon           | KDE1209PTB-6A                | 12            | 3.63 x 3.63 x 1.00  | 56             | Ball    | 360          | 4.3           | UL/CUL/CE         | 39          | 11"                | 7.95    | 7.16   | 5.72   | 4.29   |
| 102963      | Nidec           | TA350DC-M3K503-55            | 12            | 3.63 x 3.63 x 1.00  | 56             | Ball    | 400          | 4.8           | UL/CSA            | 45          | 8"                 | 7.95    | 7.16   | 5.72   | 4.29   |
| 689872      | Mechatronic     | G9225H12-B                   | 12            | 3.63 x 3.63 x 1.00  | 93             | Ball    | 280          | 3.4           | UL/CUL/TUV        | 26          | 12" w/ conn.       | 8.49    | 7.59   | 6.65   | 5.59   |
| 174140      | Common Wealth   | FP108MS3                     | 12            | 4.68 x 4.68 x 1.00  | 54             | Sleeve  | 140          | 1.7           | UL/CSA/TUV/CE     | 25          | 12"                | 6.95    | 6.29   | 5.05   | 3.79   |
| 689231      | Sunon           | KDE1212PTS3-6A               | 12            | 4.68 x 4.68 x 1.00  | 67             | Sleeve  | 200          | 2.4           | UL/CUL/TUV/CE     | 35          | 12"                | 8.49    | 7.65   | 6.69   | 5.49   |
| 227901      | Common Wealth   | FP-108M-S1-B                 | 12            | 4.68 x 4.68 x 1.00  | 80             | Ball    | 330          | 4.0           | UL/CSA/VDE/CE     | 42          | 12"                | 10.95   | 9.85   | 8.89   | 7.99   |
| 363848      | Mechatronics    | E1225H12B                    | 12            | 4.68 x 4.68 x 1.00  | 82             | Ball    | 385          | 4.62          | UL/CUL/TUV        | 40          | 3.5"               | 12.95   | 11.79  | 10.99  | 10.99  |
| 689856      | Sunon           | KDE1212PTB1-6A               | 12            | 4.68 x 4.68 x 1.00  | 90             | Ball    | 400          | 4.8           | UL/CUL/TUV/CE     | 44.5        | 12" w/ conn.       | 12.95   | 11.59  | 10.49  | 8.95   |
| 163619      | NMB (Smart Fan) | 4710NLO12P535P0 <sup>†</sup> | 12            | 4.68 x 4.68 x 1.00  | 90             | Ball    | 740          | 8.9           | None              | 38.5        | 12"                | 4.95    | 4.46   | 3.56   | 2.67   |
| 1537133     | Delta           | WFB1212HH                    | 12            | 4.68 x 4.68 x 1.00  | 95.4           | Ball    | 610          | 7.3           | UL/CSA/CE         | 42.5        | 4" w/ conn.        | 10.95   | 10.49  | 9.75   | 7.99   |
| 686516      | Adda            | AD1212HB-F51                 | 12            | 4.68 x 4.68 x 1.50  | 104.8          | Ball    | 500          | 6             | UL/CUL/CSA/TUV/CE | 42.8        | 11" w/ conn.       | 13.95   | 12.49  | 10.95  | 7.95   |
| 1537221     | Sunon           | KDE1212PMB-6A                | 12            | 4.68 x 4.68 x 1.50  | 108            | Ball    | 570          | 6.8           | UL/CUL/CE         | 42          | 12" w/ conn.       | 12.95   | 12.49  | 10.95  | 9.25   |
| 159020      | Sunon           | KDE1212PMS1-6A               | 12            | 4.68 x 4.68 x 1.50  | 107            | Sleeve  | 570          | 6.8           | UL/CSA/TUV        | 41          | 12"                | 10.95   | 9.86   | 7.88   | 5.91   |
| 285966      | Delta           | AFB1212VHE                   | 12            | 4.68 x 4.68 x 1.50  | 130            | Ball    | 900          | 10.8          | UL/CSA/VDE/CE     | 48          | 6"                 | 14.95   | 13.45  | 10.75  | 8.09   |
| 1537467     | Comair          | QJ12B7X                      | 12            | 6.77 x 5.90 x 2.00  | 235            | Ball    | 2260         | 25.2          | UL/CSA/TUV/CE     | 54.3        | 12"/3 leads        | 69.95   | 62.95  | 56.95  | 52.95  |
| 687826      | Sunon           | KDE2404PKB2                  | 24            | 1.60 x 1.60 x 0.80  | 7              | Ball    | 40           | 1.0           | UL/CUL/TUV        | 29          | 11"                | 7.95    | 7.15   | 6.49   | 5.29   |
| 687818      | Sunon           | KDE2406PHB3                  | 24            | 2.36 x 2.36 x 0.60  | 15.2           | Ball    | 50           | 1.2           | UL/CUL/TUV        | 26.5        | 11"                | 8.49    | 7.59   | 6.59   | 5.49   |
| 421518      | Panasonic       | FBA06T24H                    | 24            | 2.36 x 2.36 x 0.60  | 16.6           | Sleeve  | 110          | 1.99          | UL/CSA            | 32          | 11"                | 8.09    | 7.03   | 6.31   | 5.70   |
| 140661      | NMB             | 2408NLL-05W-B60              | 24            | 2.36 x 2.36 x 0.80  | 18.4           | Ball    | 100          | 2.4           | None              | 31          | 2"                 | 5.95    | 5.39   | 4.34   | 3.24   |
| 174107      | Jamicon         | JF0625S2M                    | 24            | 2.36 x 2.36 x 1.00  | 18             | Sleeve  | 130          | 3.1           | UL/TUV            | 28.5        | 10"                | 5.79    | 5.21   | 4.69   | 4.22   |
| 189861      | Jamicon         | JF0625B2M                    | 24            | 2.36 x 2.36 x 1.00  | 18             | Ball    | 130          | 3.1           | UL/CSA/TUV/CE     | 28.5        | 10"                | 8.95    | 8.06   | 7.25   | 6.52   |
| 227248      | Mechatronics    | F6025E24B                    | 24            | 2.36 x 2.36 x 1.00  | 24             | Ball    | 125          | 3.0           | UL/CUL/TUV        | 36          | 12"                | 7.95    | 7.15   | 5.75   | 4.29   |
| 687797      | Sunon           | KDE2408PTS3-6                | 24            | 3.15 x 3.15 x 1.00  | 29.4           | Sleeve  | 60           | 1.5           | —                 | 24.5        | 4" w/ conn.        | 8.95    | 7.95   | 6.95   | 5.79   |
| 290028      | Jamicon         | JF0825B2M                    | 24            | 3.15 x 3.15 x 1.00  | 31.7           | Ball    | 130          | 3.1           | UL/CUL/TUV/CE     | 29.3        | 10"                | 8.25    | 7.42   | 5.94   | 4.46   |
| 662653      | Panaflo         | FBO8A24M1A                   | 24            | 3.15 x 3.15 x 1.00  | 32.1           | Sleeve  | 100          | 2.4           | UL/CSA            | 28          | 11.5"              | 7.95    | 5.95   | 4.95   | 4.49   |
| 136161      | Jamicon         | JF0825B2H                    | 24            | 3.15 x 3.15 x 1.00  | 39.2           | Ball    | 150          | 3.6           | UL/CSA/TUV        | 31          | 12"                | 9.49    | 8.55   | 7.69   | 6.95   |
| 189886      | NMB             | 3610KL-05W-B30               | 24            | 3.63 x 3.63 x 1.00  | 40.6           | Ball    | 87           | 2.1           | UL/CSA/VDE        | 34          | 12"                | 7.95    | 7.16   | 5.72   | 4.29   |
| 695041      | Sunon           | KDE2409PTB1-6                | 24            | 3.63 x 3.63 x 1.00  | 51             | Ball    | 140          | 3.4           | —                 | 37          | 12"                | 7.95    | 7.15   | 5.29   | 4.95   |
| 174094      | Jamicon         | JF0925S2H                    | 24            | 3.63 x 3.63 x 1.00  | 52             | Sleeve  | 190          | 4.6           | UL/CUL            | 37          | 10"                | 6.95    | 6.26   | 5.63   | 5.07   |
| 421534      | Panasonic       | FBA09A25M                    | 24            | 3.63 x 3.63 x 1.00  | 48             | Sleeve  | 100          | 2.64          | UL/CSA            | 30          | 10"                | 6.69    | 5.80   | 5.21   | 4.70   |
| 687762      | Sunon           | KDE2412PTB3-6A               | 24            | 4.68 x 4.68 x 1.00  | 69             | Ball    | 130          | 3.1           | CE                | 35.5        | 11"                | 10.95   | 9.85   | 8.79   | 7.49   |
| 249287      | Jamicon         | JF1225B2HS                   | 24            | 4.68 x 4.68 x 1.00  | 83             | Ball    | 500          | 12            | None              | 41.1        | 7.5"               | 12.39   | 11.15  | 8.92   | 6.69   |
| 694516      | Jamicon         | JF1238B2LR130-065R           | 24            | 4.68 x 4.68 x 1.50  | 84.5           | Ball    | 130          | 3.12          | UL/CSA/TUV/CE     | 33.8        | 9.5"               | 16.95   | 15.49  | 13.25  | 11.95  |
| 694444      | Jamicon         | JF123852MR130-065R           | 24            | 4.68 x 4.68 x 1.50  | 101.3          | Sleeve  | 220          | 5.28          | UL/CSA/TUV/CE     | 39.1        | 9.5"               | 15.95   | 14.35  | 12.95  | 11.49  |
| 694524      | Jamicon         | JF1238B2MR130-065R           | 24            | 4.68 x 4.68 x 1.50  | 101.3          | Ball    | 220          | 5.28          | UL/CSA/TUV/CE     | 39.1        | 9.5"               | 16.95   | 15.49  | 13.25  | 11.95  |
| 694532      | Jamicon         | JF1238B2HR130-065R           | 24            | 4.68 x 4.68 x 1.50  | 118.7          | Ball    | 310          | 7.44          | UL/CSA/TUV/CE     | 43.8        | 9.5"               | 16.95   | 15.49  | 13.25  | 11.95  |
| 689063      | EBM             | W2G115-AG75-85               | 48            | 5.00 x 5.00 x 1.50  | 155            | Ball    | 310          | 15            | UL/CUL            | 52          | 10"/3 leads        | 49.95   | 44.95  | 39.39  | 33.95  |

<sup>1</sup> 662661: Locked rotor alarm


<sup>2</sup> 323897: Speed sensor


<sup>†</sup> Temperature control: 162739 (50°C, 3 leads); 163619 (35°C)

 Blue Part No. = Limited Quantity Available

## DC Brushless Blowers

| Part Number | Manufacturer | Product Number | Voltage (VDC) | Size (W" x H" x D") | Air Flow (CFM) | Bearing | Current (mA) | Power (Watts) | Agency Approvals | Noise (dBA) | Connection (Leads) | Pricing |        |        |        |
|-------------|--------------|----------------|---------------|---------------------|----------------|---------|--------------|---------------|------------------|-------------|--------------------|---------|--------|--------|--------|
|             |              |                |               |                     |                |         |              |               |                  |             |                    | 1       | 10     | 50     | 100    |
| 422801      | Sunon        | GB1205PKV1-8AY | 12            | 2.00 x 2.00 x 0.80  | 5.7            | Vapo    | 120          | 1.44          | UL/CSA/CE/TUV    | 35          | 12" leads          | \$12.39 | \$9.97 | \$9.36 | \$8.83 |
| 644842      | Evercool     | EC7530M12C-B   | 12            | 2.83 x 3.00 x 1.16  | 10.8           | Sleeve  | 170          | 2.04          | UL/CUL/CE/TUV    | 30          | 14" w/ conn.       | 15.55   | 10.93  | 10.27  | 9.68   |
| 614951      | Delta        | BFB0721H       | 12            | 2.98 x 2.98 x 1.20  | 11.3           | Ball    | 60           | 0.72          | UL/CSA/VDE/CE    | 38          | 12" leads          | 11.79   | 8.35   | 7.79   | 7.19   |
| 644893      | Evercool     | EC9733M12C-B   | 12            | 3.83 x 3.64 x 1.27  | 19.42          | Sleeve  | 200          | 2.4           | CE               | 30          | 14" w/ conn.       | 20.15   | 14.16  | 13.30  | 12.55  |
| 645028      | Evercool     | EC9733H12C-B   | 12            | 3.83 x 3.64 x 1.27  | 23.6           | Sleeve  | 260          | 3.12          | CE               | 33          | 14" w/ conn.       | 20.15   | 14.16  | 13.30  | 12.55  |
| 213567      | Nidec        | A34124-33      | 12            | 3.83 x 3.72 x 1.30  | 25             | Ball    | 650          | 7.8           | UL/CUL           | 60          | 11.5"/3 leads      | 16.95   | 15.26  | 12.21  | 9.16   |

 RoHS compliant product

 This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

[Details on page 1.](#)

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# DC Brushless Fans (Continued)



RoHS Compliant Product  
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Page 1

Color Code Legend  
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- Low profile
- Ball and sleeve bearings
- Power input by lead wires or terminals
- PBT black thermo plastic frame and impeller

- Agency approved
- Low power consumption
- Low acoustical noise rating



695682



695754

For more Comair Rotron DC Fans visit [www.Jameco.com](http://www.Jameco.com)

| Part Number | Product Number         | Voltage (VDC) | Size (W" x H" x D") | Air Flow (CFM) | Bearing | Current (mA) | Power (Watts) | Agency Approvals | Connection (Leads) | Pricing |        |        |
|-------------|------------------------|---------------|---------------------|----------------|---------|--------------|---------------|------------------|--------------------|---------|--------|--------|
|             |                        |               |                     |                |         |              |               |                  |                    | 1       | 10     | 100    |
| 695789      | 032604 (CR0405HB-G70)♣ | 5             | 1.57 x 1.57 x 0.40  | 6.8            | Ball    | 244          | 0.95          | None             | 12"                | \$8.75  | \$8.44 | \$7.99 |
| 695797      | 032622 (CR0412HB-C50)♣ | 12            | 1.57 x 1.57 x 0.80  | 6              | Ball    | 100          | 1.2           | None             | 12"                | 8.75    | 7.92   | 7.09   |
| 695711      | 031156 (FS12B3)♣       | 12            | 2.36 x 2.36 x 1.00  | 18             | Ball    | 142          | 1.7           | UL/CSA/TUV/CE    | 12"                | 32.25   | 21.38  | 19.75  |
| 695703      | 031101 (WT12B3)♣       | 12            | 3.15 x 3.15 x 1.26  | 15             | Ball    | 420          | 5.1           | UL/CUL/TUV       | 12"                | 32.99   | 32.77  | 32.55  |
| 695682      | 030615 (ST12B3)♣       | 12            | 3.15 x 3.15 x 1.26  | 34             | Ball    | 280          | 3.4           | UL/CSA/TUV       | 12"                | 18.89   | 18.75  | 18.51  |
| 695623      | 028868 (MD12B2)♣       | 12            | 4.69 x 4.69 x 1.54  | 110            | Ball    | 500          | 6             | UL/CSA/TUV       | Terminals          | 42.25   | 40.83  | 39.44  |
| 695658      | 028885 (MD12B5)♣       | 12            | 4.69 x 4.69 x 1.54  | 110            | Ball    | 500          | 6             | UL/CSA/TUV       | 12"                | 37.99   | 37.71  | 37.45  |
| 695771      | 032489 (MC12B3)♣       | 12            | 4.73 x 4.73 x 1.26  | 102            | Ball    | 660          | 7.9           | UL/CSA/TUV       | 12"                | 20.69   | 20.55  | 20.41  |
| 695754      | 032176 (BD12A3)♣       | 12            | 4.75 x 4.75 x 1.25  | 26             | Sleeve  | 900          | 11            | UL/CSA/TUV       | 12"                | 34.45   | 32.51  | 30.57  |
| 695800      | 032628 (CR0424HB-C50)♣ | 24            | 1.57 x 1.57 x 0.80  | 6              | Ball    | 90           | 2.16          | None             | 12"                | 8.71    | 7.89   | 7.06   |
| 695720      | 031157 (FS24B3)♣       | 24            | 2.36 x 2.36 x 1.00  | 18             | Ball    | 80           | 1.9           | UL/CSA/TUV/CE    | 12"                | 25.25   | 20.11  | 19.73  |
| 695674      | 030614 (ST24K3)♣       | 24            | 3.15 x 3.15 x 1.26  | 40             | Ball    | 220          | 5.3           | UL/CSA/TUV       | 12"                | 21.05   | 19.87  | 18.69  |
| 695615      | 028866 (MD24B1)♣       | 24            | 4.69 x 4.69 x 1.54  | 110            | Ball    | 250          | 6             | UL/CSA/TUV/CE    | 12"                | 42.19   | 40.82  | 39.44  |
| 695631      | 028869 (MD24B2)♣       | 24            | 4.69 x 4.69 x 1.54  | 110            | Ball    | 250          | 6             | UL/CSA/TUV/CE    | Terminals          | 42.19   | 40.83  | 39.45  |
| 695666      | 030572 (MC24B3)♣       | 24            | 4.73 x 4.73 x 1.26  | 102            | Ball    | 280          | 6.7           | UL/CSA/TUV       | 12"                | 20.75   | 20.58  | 20.41  |
| 695762      | 032183 (SPD24B1)♣      | 24            | 6.37 x 6.37 x 2.00  | 60             | Ball    | 1100         | 30            | UL/CSA/TUV       | 12"                | 71.49   | 68.64  | 63.45  |
| 695691      | 031090 (JQ24B4)♣       | 24            | 6.75 x 5.90 x 2.00  | 235            | Ball    | 850          | 20.3          | UL/CSA/TUV       | Terminals          | 69.29   | 67.19  | 65.18  |
| 695640      | 028870 (MD48B2)♣       | 48            | 4.69 x 4.69 x 1.54  | 110            | Ball    | 125          | 6             | UL/CSA/TUV       | Terminals          | 42.19   | 40.82  | 39.44  |

## AC Tube Axial Fans



- Rating 115 & 220VAC @ 50-60Hz
- Agency approved fans

- Low acoustical noise rating
- Ball and sleeve bearings



695463



695594

For more Comair Rotron AC Fans visit [www.Jameco.com](http://www.Jameco.com)

| Part Number | Product Number   | Voltage (VAC) | Size (W" x H" x D")   | Air Flow (CFM) | Bearing | Current (mA) | Power (Watts) | Agency Approvals | Connection (Leads) | Pricing |         |         |
|-------------|------------------|---------------|-----------------------|----------------|---------|--------------|---------------|------------------|--------------------|---------|---------|---------|
|             |                  |               |                       |                |         |              |               |                  |                    | 1       | 10      | 100     |
| 695535      | 028286 (SU2B1)♣  | 115           | 3.14 x 3.14 x 1.65    | 34             | Ball    | 150          | 11            | UL/CSA/VDE       | 12"                | \$28.15 | \$26.55 | \$24.97 |
| 695543      | 028279 (SU2A5)♣  | 115           | 3.14 x 3.14 x 1.65    | 34             | Sleeve  | 150          | 11            | UL/CSA/VDE       | Terminals          | 25.15   | 23.71   | 22.30   |
| 695578      | 028410 (SU2B5)♣  | 115           | 3.14 x 3.14 x 1.65    | 34             | Ball    | 150          | 11            | UL/CSA/VDE       | Terminals          | 28.15   | 26.56   | 24.97   |
| 695560      | 028316 (MX2A3)♣  | 115           | 4.69 x 4.69 x 1.54    | 110            | Sleeve  | 180          | 15            | UL/CSA/VDE       | Terminals          | 24.85   | 22.45   | 22.05   |
| 695586      | 028422 (MX2B3)♣  | 115           | 4.69 x 4.69 x 1.54    | 110            | Ball    | 180          | 15            | UL/CSA/VDE       | Terminals          | 36.69   | 34.61   | 32.55   |
| 695501      | 028027 (MU2B1)♣  | 115           | 4.71 x 4.71 x 1.50    | 105            | Ball    | 160          | 14            | UL/CSA           | Terminals          | 34.85   | 32.87   | 30.91   |
| 695498      | 028021 (MU2A1)♣  | 115           | 4.71 x 4.71 x 1.50    | 105            | Sleeve  | 160          | 14            | UL/CSA           | Terminals          | 23.59   | 22.26   | 20.94   |
| 695607      | 028454 (BT2B1)♣  | 115           | 4.75 x 4.75 x 1.60    | 22             | Ball    | 170          | 14.5          | UL/CSA/TUV/CE    | Terminals          | 38.85   | 34.70   | 30.57   |
| 695519      | 028245 (MR2B3)♣  | 115           | 6.15 x 5.92 x 2.00    | 235            | Ball    | 260          | 31            | UL/CSA/VDE       | Terminals          | 59.09   | 55.76   | 52.44   |
| 695527      | 028254 (PT2B3)♣  | 115           | 6.75 dia. x 2.0 thick | 235            | Ball    | 260          | 31            | UL/CSA/VDE       | Terminals          | 83.89   | 76.26   | 69.91   |
| 695738      | 031842 (MA2B3)♣  | 115           | 6.75 x 5.92 x 2.17    | 300            | Ball    | 360          | 50            | UL/CUL/TUV/CE    | Terminals          | 70.75   | 70.09   | 69.74   |
| 695439      | 020169 (TNE2C)♣  | 115           | 6.90 x 6.90 x 4.40    | 330            | Ball    | 530          | 56            | UL/CSA/TUV       | 12"                | 86.39   | 79.99   | 75.93   |
| 695455      | 020174 (TNE2A)♣  | 115           | 6.90 x 6.90 x 4.40    | 330            | Ball    | 530          | 56            | UL/CSA/TUV       | Terminals          | 86.55   | 81.41   | 76.80   |
| 695463      | 020188 (CLE2L2)♣ | 115           | 10 dia. x 3.5 thick   | 550            | Ball    | 480          | 34            | UL/CSA/TUV/CE    | 24"                | 57.55   | 57.00   | 56.83   |
| 695471      | 020189 (CLE2T2)♣ | 115           | 10 dia. x 3.5 thick   | 550            | Ball    | 480          | 34            | UL/CSA/TUV/CE    | Terminals          | 59.35   | 58.95   | 58.55   |
| 695594      | 028423 (MX3B3)♣  | 230           | 4.69 x 4.69 x 1.54    | 110            | Sleeve  | 90           | 16            | UL/CSA/VDE       | Terminals          | 36.65   | 34.60   | 32.55   |
| 695551      | 028309 (MR77B3)♣ | 230           | 6.75 x 5.92 x 2.00    | 235            | Ball    | 140          | 30            | UL/CSA/TUV/CE    | Terminals          | 59.35   | 56.03   | 52.69   |
| 695746      | 031844 (MA77B3)♣ | 230           | 6.75 x 5.92 x 2.17    | 300            | Ball    | 180          | —             | UL/CUL/TUV/CE    | Terminals          | 70.69   | 70.19   | 69.74   |
| 695447      | 020172 (TNE3A)♣  | 230           | 6.90 x 6.90 x 4.40    | 330            | Ball    | 260          | 59            | UL/CSA/TUV       | Terminals          | 86.55   | 81.48   | 76.80   |
| 695480      | 020191 (CLE3T2)♣ | 230           | 10 dia. x 3.5 thick   | 250            | Ball    | 550          | —             | UL/CSA/TUV/CE    | Terminals          | 59.25   | 58.85   | 58.55   |



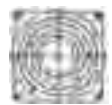
### Fan Guards

Compatible with  
Comair DC and AC  
Fans (above)

- All guards and filters fit all fans by matching the size dimension.



696685



696651



696571



696642



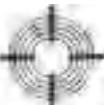
696677



696669/696634



696589



696597

| Part No. | Product No. | Description                            | 1      | 10     | 100    |
|----------|-------------|--|--------|--------|--------|
| 696685   | 572621 ♣    | 2.09" dia., steel nickel chrome finish | \$2.85 | \$2.52 | \$2.33 |
| 696651   | 551147 ♣    | 4.68" dia.                             | 2.55   | 2.31   | 2.07   |
| 696571   | 476042 ♣    | 4.31" dia., steel zinc plated          | 1.75   | 1.49   | 1.38   |
| 696642   | 550481 ♣    | 4.68" dia.                             | .95    | .90    | .87    |
| 696677   | 552934 ♣    | 4.62" dia., steel zinc plated          | 2.55   | 2.31   | 2.07   |
| 696669   | 551199 ♣    | 6.75" dia., steel zinc plated          | 3.69   | 3.26   | 3.02   |
| 696634   | 550272 ♣    | 6.75" dia., steel zinc plated          | 4.05   | 3.64   | 3.36   |
| 696589   | 476136 ♣    | 8.74" dia., steel nickel chrome        | 6.29   | 5.68   | 5.26   |
| 696597   | 476323 ♣    | 8.25" dia., steel zinc plated          | 5.15   | 4.66   | 4.31   |

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product    ♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)





212600



275792

Call for additional OEM PRICING – we carry major manufacturers.



- Rating 115 & 220VAC @ 50-60Hz
- Low acoustical noise rating
- Agency approved fans
- Ball and sleeve bearings
- Air flow from 11 to 226 CFM

Fan Power Cords Below



206309



209365

| Part Number | Manufacturer  | Product Number   | Voltage (VAC) | Size (W" x H" x D") | Air Flow (CFM) | Bearing | Current (mA) | Power (Watts) | Agency Approvals | Noise (dBA) | Connection (Leads) | Pricing |         |         |         |
|-------------|---------------|------------------|---------------|---------------------|----------------|---------|--------------|---------------|------------------|-------------|--------------------|---------|---------|---------|---------|
|             |               |                  |               |                     |                |         |              |               |                  |             |                    | 1       | 10      | 50      | 100     |
| 213867      | Fulltech      | UF60D11BWH       | 115           | 2.36 x 2.36 x 1.18  | 10.2           | Ball    | 35           | 4             | UL/CUL/VDE/CE    | 28          | 12" leads          | \$15.95 | \$14.39 | \$12.95 | \$11.65 |
| 162704      | Toyot         | USTF60301153W    | 115           | 2.36 x 2.36 x 1.18  | 11             | Ball    | 38           | 4             | UL/CSA/CE        | 29          | 12" leads          | 15.49   | 13.95   | 12.55   | 11.64   |
| 146078      | Common Wealth | FP108AX-S1-B     | 115           | 3.15 x 3.15 x 1.00  | 23             | Ball    | 140          | 14            | UL/CE            | 29          | 12" leads          | 12.95   | 11.69   | 10.49   | 9.45    |
| 300557      | Fulltech      | UF80B11SWH       | 115           | 3.15 x 3.15 x 1.00  | 24             | Sleeve  | 140          | 14            | UL/CUL/TUV/CE    | 35          | 12" leads          | 9.19    | 8.25    | 7.98    | 7.70    |
| 300258      | Fulltech      | UF80B11BTH       | 115           | 3.15 x 3.15 x 1.00  | 24             | Ball    | 140          | 14            | UL/CUL/TUV/CE    | 35          | Terminals          | 10.19   | 9.18    | 8.87    | 8.57    |
| 300581      | Fulltech      | UF80A11SWL       | 115           | 3.15 x 3.15 x 1.50  | 25             | Sleeve  | 110          | 12            | UL/CUL/TUV/CE    | 32          | 12" leads          | 9.59    | 8.64    | 8.35    | 8.06    |
| 300303      | Fulltech      | UF80A11BWL       | 115           | 3.15 x 3.15 x 1.50  | 25             | Ball    | 110          | 11            | UL/CUL/TUV/CE    | 32          | 12" leads          | 10.55   | 9.50    | 9.19    | 8.87    |
| 300329      | Fulltech      | UF80A11BTL       | 115           | 3.15 x 3.15 x 1.50  | 25             | Ball    | 110          | 12            | UL/CUL/TUV/CE    | 32          | Terminals          | 10.55   | 9.50    | 9.19    | 8.87    |
| 300600      | Fulltech      | UF80A11BWH       | 115           | 3.15 x 3.15 x 1.50  | 29             | Ball    | 120          | 12            | UL/CUL/TUV/CE    | 36          | 12" leads          | 11.39   | 10.26   | 9.59    | 9.09    |
| 300388      | Fulltech      | UF80A11BTH       | 115           | 3.15 x 3.15 x 1.50  | 30             | Ball    | 120          | 12            | UL/CUL/TUV/CE    | 36          | Terminals          | 11.39   | 10.26   | 9.58    | 9.10    |
| 297932      | Fulltech      | UF80A11SWH       | 115           | 3.15 x 3.15 x 1.50  | 30             | Sleeve  | 120          | 12            | UL/CUL/TUV/CE    | 36          | 12" leads          | 10.19   | 9.18    | 8.99    | 8.57    |
| 300394      | Fulltech      | UF80A11STL       | 115           | 3.15 x 3.15 x 1.50  | 25             | Sleeve  | 100          | 11.5          | UL/CUL/TUV/CE    | 32          | Terminals          | 8.95    | 8.15    | 7.37    | 6.70    |
| 75460       | Sunon         | SF11592A-1092HBT | 115           | 3.63 x 3.63 x 1.00  | 37             | Ball    | 110          | 12            | UL/CSA/TUV/CE    | 40          | Terminals          | 15.95   | 14.39   | 12.95   | 11.65   |
| 75432       | Sunon         | SF11592A-1092HSL | 115           | 3.63 x 3.63 x 1.00  | 36             | Sleeve  | 130          | 12            | UL/CSA/TUV/CE    | 39          | 12" leads          | 13.55   | 12.19   | 10.99   | 9.85    |
| 303467      | Sunon         | SF11592A-1092HBL | 115           | 3.63 x 3.63 x 1.00  | 37             | Ball    | 110          | 12            | UL/CSA/TUV/CE    | 40          | 12" leads          | 14.99   | 14.39   | 12.99   | 10.99   |
| 124063      | Sunon         | SP101AT1122HBT   | 115           | 4.68 x 4.68 x 1.00  | 78             | Ball    | 180          | 18            | CSA/TUV/CE       | 46          | Terminals          | 13.49   | 10.95   | 9.89    | 9.19    |
| 303408      | Sunon         | SP100A-1123XBL   | 115           | 4.68 x 4.68 x 1.50  | 117            | Ball    | 240          | 20            | UL/CSA/TUV/CE    | 47          | 12" leads          | 14.95   | 13.95   | 12.95   | 11.95   |
| 303415      | Common Wealth | FP108-1-S1-B/W   | 115           | 4.68 x 4.68 x 1.50  | 105            | Ball    | 200          | 17            | UL/CSA/TUV/CE    | 47          | 12" leads          | 16.95   | 15.26   | 12.20   | 9.46    |
| 303482      | Fulltech      | UF12A11SWL       | 115           | 4.68 x 4.68 x 1.50  | 82             | Sleeve  | 150          | 12            | UL/CUL/TUV/CE    | 38          | 12" leads          | 12.85   | 11.54   | 10.77   | 10.23   |
| 303361      | Fulltech      | UF12A11BTL       | 115           | 4.68 x 4.68 x 1.50  | 64             | Ball    | 80           | 15            | UL/CUL/TUV/CE    | 37          | Terminals          | 12.85   | 11.54   | 10.76   | 10.23   |
| 300792      | Fulltech      | UF12A11STL       | 115           | 4.68 x 4.68 x 1.50  | 81             | Sleeve  | 150          | 15            | UL/CUL/TUV/CE    | 38          | Terminals          | 10.95   | 9.84    | 9.51    | 9.19    |
| 111895      | Common Wealth | FP108-1-S1/W     | 115           | 4.68 x 4.68 x 1.50  | 105            | Sleeve  | 180          | 17            | UL/CSA/CE        | 47          | 12" leads          | 13.95   | 12.59   | 11.35   | 10.19   |
| 106585      | Common Wealth | FP108-1-S1/T     | 115           | 4.68 x 4.68 x 1.50  | 105            | Sleeve  | 180          | 12            | UL/CSA/CE        | 47          | Terminals          | 15.95   | 14.35   | 11.48   | 8.61    |
| 16935       | Common Wealth | FP108-1-S1-B     | 115           | 4.68 x 4.68 x 1.50  | 105            | Ball    | 200          | 17            | UL/CSA/TUV/CE    | 47          | Terminals          | 16.95   | 15.29   | 13.75   | 12.39   |
| 212600      | Fulltech      | UF12A11BWH       | 115           | 4.68 x 4.68 x 1.50  | 106            | Ball    | 190          | 15            | UL/CUL/TUV/CE    | 46          | 12" leads          | 12.95   | 11.95   | 10.95   | 9.95    |
| 275792      | Sunon         | SP101A-1123HBT   | 115           | 4.68 x 4.68 x 1.50  | 107            | Ball    | 180          | 18            | UL/CUL/CE        | 50          | Terminals          | 13.45   | 11.21   | 9.88    | 9.19    |
| 206309      | Adda          | AA1281UB-AT      | 115           | 4.68 x 4.68 x 1.50  | 107            | Ball    | 230          | 24            | UL/CUL/CE        | 48          | Terminals          | 14.95   | 13.00   | 10.76   | 8.07    |
| 102884      | Sunon         | SP100A-1123XBT   | 115           | 4.68 x 4.68 x 1.50  | 117            | Ball    | 240          | 20            | UL/CUL/TUV/CE    | 50          | Terminals          | 14.95   | 13.95   | 12.95   | 11.95   |
| 108725      | Fulltech      | UF15AC11BTH      | 115           | 6.75 x 5.90 x 1.50  | 211            | Ball    | 230          | 28            | UL/CUL/TUV/CE    | 58          | Terminals          | 27.95   | 25.16   | 20.12   | 17.91   |
| 212582      | Fulltech      | UF15PC11BWH      | 115           | 6.75 x 5.90 x 2.00  | 226            | Ball    | 250          | 30            | UL/CUL/TUV/CE    | 58          | 12" leads          | 24.95   | 22.46   | 21.99   | 21.52   |
| 189683      | Fulltech      | UF15PC11BTH      | 115           | 6.75 x 5.90 x 2.00  | 226            | Ball    | 250          | 30            | CSA              | 58          | Terminals          | 29.95   | 26.96   | 21.56   | 19.15   |
| 355629      | Fulltech      | UF-80A23-BTH     | 220           | 3.15 x 3.15 x 1.50  | 30             | Ball    | 60           | 12            | UL/CSA/VDE/CE    | 36          | Terminals          | 11.39   | 10.26   | 9.75    | 9.26    |
| 100918      | Sunon         | SF23080A/2083HSL | 220           | 3.15 x 3.15 x 1.50  | 30             | Sleeve  | 60           | 13.5          | UL/CSA/TUV/CE    | 35          | 12" leads          | 10.49   | 8.39    | 7.55    | 6.40    |
| 209365      | Bi-Sonic      | 4C-230LB         | 220           | 4.68 x 4.68 x 1.50  | 63             | Ball    | 60           | 9             | TUV/CE           | 34          | 10" leads          | 12.95   | 11.66   | 9.71    | 9.22    |
| 302244      | Rotron        | 28023            | 220           | 4.68 x 4.68 x 1.50  | 88             | Ball    | 130          | 28.6          | UL/CSA           | 50.7        | Terminals          | 17.19   | 15.49   | 12.38   | 9.29    |
| 303458      | Sunon         | DP200A-2123XBL   | 220           | 4.68 x 4.68 x 1.50  | 117            | Ball    | 120          | 21            | UL/CSA/TUV/CE    | 50          | 12" leads          | 15.95   | 14.39   | 12.95   | 11.65   |
| 102892      | Sunon         | DP200A-2123XBT   | 220           | 4.68 x 4.68 x 1.50  | 117            | Ball    | 120          | 21            | UL/CSA/TUV/CE    | 50          | Terminals          | 15.95   | 14.39   | 12.95   | 11.65   |

Blue Part No. = Limited Quantity Available

## Fan Guards, Filters and Power Cords

Quantity SAVE

SALE

Compatible with DC and AC Fans – pages 210-213

- All guards and filters fit all fans by matching the size dimension.
- Example: P/N 300557 fan (3.15") matches P/N 31923 metal guard (3.15").



123502



120037



31923/123511



25734



138562/196817



229665



138579/130104

| Part No. | Description                        | 1      | 10      | 100     | 250     |
|----------|------------------------------------|--------|---------|---------|---------|
| 123502   | 1.60" metal (chrome) guard         | \$ .49 | \$ .441 | \$ .376 | \$ .283 |
| 120037   | 2.36" metal (chrome) guard         | .79    | .71     | .59     | .53     |
| 687666   | 2.36" steel (anodized) guard       | .95    | .85     | .74     | .59     |
| 31923    | 3.15" metal (chrome) guard         | .79    | .65     | .51     | .44     |
| 123511   | 3.63" metal (chrome) guard         | .99    | .78     | .67     | .53     |
| 25734    | 4.68" metal (chrome) guard         | 1.09   | .98     | .88     | .79     |
| 695068   | 4.68" steel (black anodized) guard | 1.09   | .98     | .88     | .79     |
| 695076   | 5.00" metal (chrome) guard         | 1.59   | 1.39    | 1.25    | 1.06    |
| 138562   | 3.15" plastic guard with mesh      | 1.39   | 1.25    | 1.15    | .95     |
| 229665   | 3.63" plastic guard with mesh      | 1.75   | 1.55    | 1.25    | .95     |
| 196817   | 4.68" plastic guard with mesh      | 1.95   | 1.55    | 1.39    | 1.25    |
| 138579   | 3.15" alum. washable filter        | 2.95   | 2.66    | 2.12    | 1.59    |
| 130104   | 4.68" alum. washable filter        | 3.49   | 3.19    | 2.75    | 2.49    |

## Fan Power Cords: 24" Straight and Right-Angle

- Cord type: SPT-1 (2) conductor black
- Voltage rating: 300V
- Temperature range: 60°C
- Fits all terminal fans
- Blue Part No. = Limited Quantity Available

| Part No. | Description                         | Length | 1      | 10     | 100    | 250    |
|----------|-------------------------------------|--------|--------|--------|--------|--------|
| 28564    | Straight socket cord                | 24"    | \$ .99 | \$ .88 | \$ .70 | \$ .62 |
| 104192   | 90° angle socket cord               | 24"    | .99    | .88    | .71    | .70    |
| 696562   | Comair Rotron 90° angle socket cord | 24-26" | 1.39   | 1.23   | 1.15   | 1.12   |



This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product

This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

## 30-Watt Open Frame, Low Leakage

### MPS-30 Series: Single Output

- 100% full load burn-in test
- Universal AC input
- High-efficiency, low heat generation
- Working temperature: -10°C to +50°C
- See [www.Jameco.com](http://www.Jameco.com) for specs.
- Load regulation: ±1.0%
- Line regulation: ±1.0%
- Inrush current: 35A @ 120VAC
- Leakage current: 0.3mA @ 240V
- Isolation voltage: 4000VAC
- Mounting holes: 3.74"L x 2.02"W x 0.12"Dia.
- 2.9 watts/in<sup>3</sup> maximum
- Mating connectors: P/Ns 104723 & 104432, pg 133
- Three-year warranty • Weight: 0.3 lbs.
- Size: 4.0"L x 2.59"W x 0.98"H

The Mean Well MPS-30 medical power supplies are low cost, high reliability open frame power supplies that feature a low leakage current of 0.3mA@240VAC. Other features of this open frame power supply are: universal input of 88-264VAC as well as 120-370VDC for battery-supported applications. Protections include short-circuit, overload, and over-voltage. They are UL and TUV approved, and carry a CE mark for use worldwide.

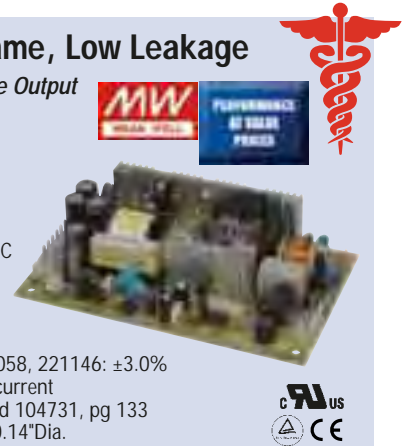


## 45 & 65-Watt Open Frame, Low Leakage

### MPS-45 & MPS-65 Series: Single Output

- 100% full load burn-in test
- Universal AC input
- High-efficiency, low heat generation
- Isolation voltage: 4000VAC
- 2.9 watts/in<sup>3</sup> max.
- Voltage adjustment: 10%
- Working temperature: -10°C to +60°C
- See [www.Jameco.com](http://www.Jameco.com) for specs.
- Leakage current: 0.3mA @ 240V
- Inrush current: 20A @ 120VAC
- Line regulation: ±1.0%
- Load regulation: ±2.0%, except 221058, 221146: ±3.0%
- Soft-start circuit, limiting AC surge current
- Mating connectors: P/Ns 104432 and 104731, pg 133
- Mounting holes: 4.55"L x 2.55"W x 0.14"Dia.
- Three-year warranty • Weight: 0.6 lbs.
- Size: MPS-45: 5.0"L x 3.0"W x 1.06"H; MPS-65: 5.0"L x 3.0"W x 1.65"H

The MeanWell MPS-45 & MPS-65 medical power supplies are low cost, high reliability open frame power supplies. Other features of these power supplies are: universal input of 88-264VAC, as well as 120-370VDC for battery-applications. Full rated power is available with 18CFM forced air convection applied. Protections include short-circuit, overload, and over-voltage.



For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

| Jameco Part No. | Manufacturer | Product No. | Output                    |       | Input (VAC @ Hz) | Ripple & Noise (mV p-p)* | Certification | Pricing |         |         |
|-----------------|--------------|-------------|---------------------------|-------|------------------|--------------------------|---------------|---------|---------|---------|
|                 |              |             | Voltage@Current (min-max) | Power |                  |                          |               | 1       | 10      | 25      |
| 220987          | Mean Well    | MPS-30-12   | +12V@0-2.5A               | 30.0W | 88-264@47-63     | 120                      | UL/CUL/TUV/CE | \$33.95 | \$30.49 | \$25.59 |
| 221058          | Mean Well    | MPS-45-7.5  | +7.5V@0-5.4A              | 40.5W | 90-264@47-440    | 100                      | UL/CUL/TUV/CE | 34.95   | 29.71   | 22.28   |
| 221066          | Mean Well    | MPS-45-12   | +12V@0-3.7A               | 44.4W | 90-264@47-440    | 100                      | UL/CUL/TUV/CE | 34.95   | 29.71   | 22.28   |
| 221082          | Mean Well    | MPS-45-15   | +15V@0-3A                 | 45.0W | 90-264@47-440    | 100                      | UL/CUL/TUV/CE | 34.95   | 29.71   | 22.28   |
| 221112          | Mean Well    | MPS-45-48   | +48V@0-1A                 | 48.0W | 90-264@47-440    | 100                      | UL/CUL/TUV/CE | 34.95   | 31.46   | 28.31   |
| 221146          | Mean Well    | MPS-65-7.5  | +7.5V@0-8A                | 60.0W | 90-264@47-440    | 100                      | UL/CUL/TUV/CE | 35.95   | 32.36   | 29.12   |
| 221154          | Mean Well    | MPS-65-12   | +12V@0-5.2A               | 62.4W | 90-264@47-440    | 100                      | UL/CUL/TUV/CE | 35.95   | 32.36   | 29.12   |
| 221162          | Mean Well    | MPS-65-13.5 | +13.5V@0-4.7A             | 63.5W | 90-264@47-440    | 100                      | UL/CUL/TUV/CE | 33.95   | 28.86   | 21.64   |
| 221189          | Mean Well    | MPS-65-24   | +24V@0-2.7A               | 64.8W | 90-264@47-440    | 100                      | UL/CUL/TUV/CE | 35.95   | 30.56   | 22.92   |

\* Primary Output

### 3-Conductor Power Cords

- Molded connectors
- Voltage rating: 300 volts
- Excellent resistance to jacket abrasion
- Temperature: -20°C to +60°C

See pgs 248 & 249 for more Power Cords

**With Pigtail**

| Part No. | Cross Ref. No. | Wt. | Fig. | Length | Color | AWG  | Cord Type* | Pricing |        |        |        |
|----------|----------------|-----|------|--------|-------|------|------------|---------|--------|--------|--------|
|          |                |     |      |        |       |      |            | 1       | 10     | 50     | 100    |
| 38009    | 17237          | .31 | 1    | 6'     | Gray  | 18/3 | SVT        | \$2.39  | \$2.15 | \$1.72 | \$1.29 |
| 37997    | 17236          | .30 | 1    | 6'     | Black | 18/3 | SVT        | 2.79    | 2.32   | 2.11   | 1.99   |

**With Hospital Grade Male (green dot)**

| Part No. | Cross Ref. No. | Wt. | Fig. | Length | Color | AWG  | Cord Type* | Pricing |        |        |        |
|----------|----------------|-----|------|--------|-------|------|------------|---------|--------|--------|--------|
|          |                |     |      |        |       |      |            | 1       | 10     | 50     | 100    |
| 132011   | 17006G         | .82 | 2    | 10'    | Gray  | 16/3 | SJT        | \$8.45  | \$7.61 | \$6.84 | \$6.16 |
| 115078   | 17006          | .84 | 2    | 10'    | Black | 16/3 | SJT        | 8.95    | 8.09   | 7.25   | 6.55   |

\* Thermoplastic Cord Jacket Type: SVT (Round): Light service; SJT (Round): Junior service

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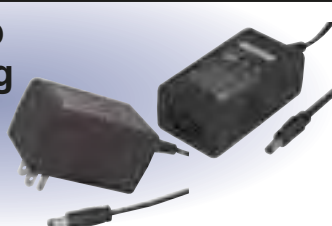
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## Medical Table-Top and Wall Switching AC-to-DC Power Supplies

See page 237























## Ultraminiature 5 to 20-Watt Power Supplies




- 100% full burn-in test
- Three year warranty
- UL/CUL/TUV/CE
- Universal AC input/full range
- Ultra miniature size and lightweight
- Short-circuit/overload/overvoltage/overtemperature protection



|                                |                                  |  |  |
|--------------------------------|----------------------------------|--|--|
| <b>5-Watt NFM-5000 Series</b>  | • Size: 2.28"L x 1.77"W x 0.75"H | • Inrush current: 25A @ 115VAC                   | • Pin-mount                                    |
| <b>10-Watt NFM-0100 Series</b> | • Size: 2.56"W x 1.77"L x 0.87"H | • Inrush current: 25A @ 115VAC                   | • Pin-mount                                    |
| <b>15-Watt NFM-1500 Series</b> | • Size: 2.76"L x 1.89"W x 0.87"  | • Inrush current: 30A @ 115VAC                   | • Pin-mount                                    |
| <b>20-Watt NFM-0200 Series</b> | • Size: 3.0"L x 2.0"W x 0.76"    | • Mating connector: P/Ns 463435 & 463443, pg 135 | • Inrush current: 30A @ 115VAC • Chassis-mount |

| Jameco Part No. | Product No.   | Output                    |        | Load Regulation | Line Regulation | Ripple & Noise (mV p-p) | Pricing |         |         |
|-----------------|---|---------------------------|--------|-----------------|-----------------|-------------------------|---------|---------|---------|
|                 |   | Voltage@Current (min-max) | Power  |                 |                 |                         | 1       | 10      | 25      |
| 694962          | NFM-05-3.3   | +3.3V@0-1.25A             | 4.13W  | ±1.5%           | ±1.0%           | 80                      | \$22.99 | \$20.99 | \$18.99 |
| 694971          | NFM-05-5     | +5V@0-1A                  | 5.0W   | ±1.5%           | ±1.0%           | 80                      | 22.99   | 20.99   | 18.99   |
| 694989          | NFM-05-12    | +12V@0-0.42A              | 5.04W  | ±0.5%           | ±0.5%           | 150                     | 22.99   | 20.99   | 18.99   |
| 695009          | NFM-05-15    | +15V@0-0.33A              | 4.95W  | ±0.5%           | ±0.5%           | 150                     | 22.99   | 20.99   | 18.99   |
| 694997          | NFM-05-24    | +24V@0-0.23A              | 5.52W  | ±0.5%           | ±0/-5%          | 240                     | 22.99   | 20.99   | 18.99   |
| 695084          | NFM-10-3.3   | +3.3@0-2.5A               | 8.25W  | ±1.0%           | ±1.0%           | 80                      | 26.99   | 24.99   | 22.99   |
| 695092          | NFM-10-5     | +5V@0-2A                  | 10.0W  | ±1.0%           | ±1.0%           | 80                      | 26.99   | 24.99   | 22.99   |
| 695105          | NFM-10-12    | +12V@0-0.85A              | 10.2W  | ±0.5%           | ±0.5%           | 150                     | 26.99   | 24.99   | 22.99   |
| 695113          | NFM-10-15    | +15V@0-0.67A              | 10.05W | ±0.5%           | ±0.5%           | 150                     | 26.99   | 24.99   | 22.99   |
| 695121          | NFM-10-24    | +24V@0-0.42A              | 10.08W | ±0.5%           | ±0.5%           | 240                     | 26.99   | 24.99   | 22.99   |
| 695148          | NFM-15-3.3   | +3.3V@0-3.5A              | 11.55W | ±1.0%           | ±1.0%           | 80                      | 30.39   | 27.99   | 25.99   |
| 695130          | NFM-15-5     | +5V@0-3A                  | 15.0W  | ±1.0%           | ±1.0%           | 80                      | 30.39   | 27.99   | 25.99   |
| 695156          | NFM-15-12    | +12V@0-1.25A              | 15.0W  | ±0.5%           | ±0.5%           | 150                     | 30.39   | 27.99   | 25.99   |
| 695164          | NFM-15-15    | +15V@0-1A                 | 15.0W  | ±0.5%           | ±0.5%           | 150                     | 30.39   | 27.99   | 25.99   |
| 695172          | NFM-15-24    | +24V@0-0.63A              | 15.12W | ±0.5%           | ±0.5%           | 240                     | 30.39   | 27.99   | 25.99   |
| 695181          | NFM-20-3.3  | +3.3V@0-4.5A              | 14.85W | ±1.0%           | ±1.5%           | 80                      | 33.99   | 31.99   | 29.99   |
| 695199          | NFM-20-5   | +5V@0-4.4A                | 22.0W  | ±1.0            | ±1.5%           | 80                      | 33.99   | 31.99   | 29.99   |
| 695201          | NFM-20-12  | +12V@0-1.8A               | 21.6W  | ±0.5%           | ±0.5%           | 150                     | 33.99   | 31.99   | 29.99   |
| 695210          | NFM-20-15  | +15V@0-1.4A               | 21.0W  | ±0.5%           | ±0.5%           | 150                     | 33.99   | 31.99   | 29.99   |
| 695228          | NFM-20-24  | +24V@0-0.92A              | 22.08W | ±0.5%           | ±0.5%           | 240                     | 33.99   | 31.99   | 29.99   |

### Other Manufacturers – Special Offers at Great Savings – 90-Day Warranty

| Jameco Part No. | Cross Ref. No.   | Output                    |       | Load Regulation | Line Regulation | Ripple & Noise (mV p-p) | Pricing |         |         |
|-----------------|--|---------------------------|-------|-----------------|-----------------|-------------------------|---------|---------|---------|
|                 |  | Voltage@Current (min-max) | Power |                 |                 |                         | 1       | 10      | 25      |
| 300484          | OFM-1502  | +12V@0-1.25A              | 15W   | ±1%             | ±0.3            | 150                     | \$40.85 | \$34.75 | \$26.05 |
| 300521          | OFM-0202   | +12V@0-1.8A               | 20W   | ±1%             | ±0.3%           | 150                     | 43.69   | 40.85   | 38.81   |
| 300530          | OFM-0203  | +15V@0-1.4A               | 20W   | ±1%             | ±0.3%           | 150                     | 43.69   | 37.15   | 27.85   |
| 300548          | OFM-0205  | +24V@0-0.92A              | 20W   | ±0.5%           | ±0.2%           | 240                     | 45.09   | 38.32   | 28.74   |



## 25-Watt Open-Frame Power Supplies

Enclosed Power Supplies on pages 219-226.

### PS-25 & PD-25 Series: Single & Dual Outputs














- 100% full-load burn-in
- Universal AC input
- Inrush current: 40A @ 120VAC
- Working temp.: -10°C to +60°C
- Size: 4.20"L x 2.40"W x 1.10"H
- Two-year warranty





| Part Number | Load Reg. (±%) | Line Reg. (±%) | Part Number | Load Reg. (±%)* | Line Reg. (±%)* | Part Number | Load Reg. (±%)* | Line Reg. (±%)* |
|-------------|----------------|----------------|-------------|-----------------|-----------------|-------------|-----------------|-----------------|
| 212362      | 2.5            | 0.5            | 216769      | 1.0             | 0.3             | 212338      | 1.0             | 0.5             |
| 212354      | 2.0            | 0.5            | 212346      | 0.5             | 0.2             | 212330      | 1.0             | 0.5             |
| 392826      | 2.0            | 0.5            | 392818      | 0.5             | 0.2             | 394250      | 4.0             | 2.0             |
| 148604      | 1.0            | 0.3            | 212312      | 4.0             | 1.0             | 148690      | 3.0             | 0.5             |
| 392810      | 1.0            | 0.3            |             |                 |                 |             |                 |                 |

\* Primary Output



| Jameco Part No. | Manufacturer  | Product No. | Output                      |       | Input (VAC @ Hz) | Ripple & Noise (mV p-p)* | Certification | Pricing |         |         |
|-----------------|---|-------------|-----------------------------|-------|------------------|--------------------------|---------------|---------|---------|---------|
|                 |   |             | Voltage@Current (min-max)   | Power |                  |                          |               | 1       | 10      | 25      |
| 212362          | Mean Well  | PS-25-3.3   | +3.3V@0-5A                  | 16.5W | 85-264@47-63     | 80                       | UL/CUL/TUV/CE | \$28.15 | \$26.19 | \$24.25 |
| 212354          | Mean Well  | PS-25-5     | +5V@0-5A                    | 25.0W | 85-264@47-63     | 80                       | UL/CUL/TUV/CE | 18.95   | 18.26   | 17.58   |
| 392826          | Mean Well  | PS-25-7.5   | +7.5V@0-3.3A                | 24.8W | 85-264@47-63     | 80                       | UL/CUL/TUV/CE | 18.95   | 18.26   | 17.58   |
| 148604          | Mean Well  | PS-25-12    | +12V@0-2.1A                 | 25.2W | 85-264@47-63     | 100                      | UL/CUL/TUV/CE | 18.95   | 18.26   | 17.58   |
| 392810          | Mean Well  | PS-25-13.5  | +13.5V@0-1.9A               | 25.7W | 85-264@47-63     | 100                      | UL/CUL/TUV/CE | 18.95   | 18.26   | 17.58   |
| 216769          | Mean Well  | PS-25-15    | +15V@0-1.7A                 | 25.5W | 85-264@47-63     | 100                      | UL/CUL/TUV/CE | 16.95   | 16.10   | 15.30   |
| 212346          | Mean Well  | PS-25-24    | +24V@0-1A                   | 24.0W | 85-264@47-63     | 240                      | UL/CUL/TUV/CE | 18.95   | 18.26   | 17.58   |
| 392818          | Mean Well  | PS-25-27    | +27V@0-0.9A                 | 24.3W | 85-264@47-63     | 240                      | UL/CUL/TUV/CE | 18.95   | 18.26   | 17.58   |
| 212312          | Mean Well  | PD-2505     | +5V@0.1-3A; -5V@0.1-2.5A    | 25.0W | 85-264@47-63     | 50                       | UL/CUL/TUV/CE | 19.95   | 16.96   | 12.72   |
| 212338          | Mean Well  | PD-25A      | +5V@0.2-2.5A; +12V@0.1-1.5A | 25.0W | 85-264@47-63     | 50                       | UL/CUL/TUV/CE | 20.69   | 19.95   | 18.31   |
| 212330          | Mean Well  | PD-25B      | +5V@0.2-2A; +24V@0.1-1A     | 25.2W | 85-264@47-63     | 50                       | UL/CUL/TUV/CE | 20.69   | 19.95   | 18.31   |
| 394250          | Mean Well  | PD-2503     | +3.3V@0.2-5A; +5V@0.1-4A    | 24.9W | 85-264@47-63     | 50                       | UL/CUL/TUV/CE | 20.69   | 19.95   | 18.31   |
| 148690          | Mean Well  | PD-2512     | +12V@0.1-1.2A; -12V@0.1-1A  | 24.0W | 85-264@47-63     | 50                       | UL/CUL/TUV/CE | 20.69   | 19.95   | 18.31   |

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

| Color Code Legend |      |         |          |
|-------------------|------|---------|----------|
| New               | Sale | Lower\$ | Qty\$ave |



# 15 to 65-Watt Open-Frame Switching AC-to-DC Power Supplies

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |

## 15 to 65-Watt Open-Frame Power Supplies

Enclosed Power Supplies  
on pages 219-226.

• 100% full burn-in test

• Universal AC input



PSA15



PS-65



### 15 & 25-Watt PSA15 & PSA25 Series: Single & Triple Outputs

- Load regulation:  $\pm 2.0\%$
- Isolation voltage: 3,000 VAC
- Inrush current: 30A @ 120VAC
- Size: 4.33"L x 1.57"W x 0.91"H, except 230536 3.6"L x 2.5"W x 1.1"H
- Line regulation:  $\pm 1.0\%$
- Voltage adjustment: 5% (PSA15 only)
- Working temp.: 0° to +40°C
- One-year warranty



### 45-Watt PSA45 Series: Triple Outputs

- Load regulation:  $\pm 2.0\%$
- Inrush current: 20A @ 120VAC
- Size: 5.0"L x 3.0"W x 1.2"H
- One-year warranty
- Line regulation:  $\pm 2.0\%$
- Working temp.: 0° to +50°C
- Weight: 0.9 lbs.



Call for special versions and large quantities

### 45-Watt PS-45, PD-45 & PT-45 Series: Single, Dual & Triple Outputs

- Load regulation:  $\pm 3.0\%$  (except 213728/213720/374362:  $\pm 2.0\%$ )
- Line regulation:  $\pm 1.0\%$
- Inrush current: 20A @ 120VAC
- Size: 5.0"L x 3.0"W x 1.06"H
- Voltage adjustment: 10%
- Working temp.: -10°C to +60°C
- Two-year warranty



### 65-Watt PS-65, PD-65 & PT-65 Series: Single, Dual & Triple Outputs

- Load & Line regulation:  $\pm 1.0\%$  to  $\pm 4.0\%$
- Voltage adjustment: 10%
- Working temp.: -10°C to +60°C
- Size: 5.0"L x 3.0"W x 1.65"H
- Inrush current: 20A @ 120VAC
- Two-year warranty
- Weight: 0.6 lbs.



For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

| Jameco Part No. | Manufacturer | Product No.  | Output                                   |       | Input (VAC @ Hz) | Ripple & Noise (mV p-p)* | Certification | Pricing |         |         |
|-----------------|--------------|--------------|--|-------|------------------|--------------------------|---------------|---------|---------|---------|
|                 |              |              | Voltage@Current (min-max)                | Power |                  |                          |               | 1       | 10      | 25      |
| 229041          | Phihong      | PSA15LN3-050 | +5V@0-3A                                 | 15.0W | 90-264@47-63     | 50                       | UL/CUL/TUV/CE | \$19.95 | \$18.95 | \$18.19 |
| 229060          | Phihong      | PSA15LN3-120 | +12V@0-1.25A                             | 15.0W | 90-264@47-63     | 120                      | UL/CUL/TUV/CE | 17.95   | 16.95   | 16.19   |
| 230536          | Phihong      | PSA25L-301   | +5V@0.2-2A; +12V@0.1-1A; -12V@0-0.3A     | 25.0W | 90-264@47-63     | 50                       | UL/CUL/TUV/CE | 23.49   | 21.15   | 18.99   |
| 229122          | Phihong      | PSA4531      | +5V@0-4A; +12V@0-1.5A; -12V@0-0.5A       | 44.0W | 90-264@47-63     | 50                       | UL/CSA/TUV/CE | 31.95   | 28.79   | 25.89   |
| 229140          | Phihong      | PSA4534      | +5V@0-4A; +15V@0-1.2A; -15V@0-0.5A       | 45.5W | 90-264@47-63     | 50                       | UL/CSA/TUV/CE | 29.95   | 27.38   | 24.80   |
| 217332          | Mean Well    | PS-45-5      | +5V@0-8A                                 | 40.0W | 90-264@47-440    | 100                      | UL/CUL/TUV/CE | 22.95   | 19.51   | 14.63   |
| 213728          | Mean Well    | PS-45-12     | +12V@0-3.7A                              | 44.4W | 90-264@47-440    | 100                      | UL/CUL/TUV/CE | 25.99   | 18.99   | 15.99   |
| 374353          | Mean Well    | PS-45-15     | +15V@0-3.5A                              | 45.0W | 90-264@47-440    | 100                      | UL/CUL/TUV/CE | 27.95   | 21.99   | 19.85   |
| 213720          | Mean Well    | PS-45-24     | +24V@0-1.9A                              | 45.6W | 90-264@47-440    | 100                      | UL/CUL/TUV/CE | 27.95   | 21.99   | 19.85   |
| 374362          | Mean Well    | PS-45-27     | +27V@0-1.95A                             | 45.9W | 90-264@47-440    | 100                      | UL/CUL/TUV/CE | 25.99   | 18.99   | 15.99   |
| 194862          | Mean Well    | PD-45A       | +5V@0.4-3.2A; +12V@0.2-2                 | 40.0W | 90-264@47-440    | 50                       | UL/CUL/TUV/CE | 24.95   | 22.46   | 20.21   |
| 194871          | Mean Well    | PD-45B       | +5V@0.4-3.2A; +24V@0.2-1.2A              | 44.8W | 90-264@47-440    | 50                       | UL/CUL/TUV/CE | 24.95   | 20.99   | 17.99   |
| 88402           | Mean Well    | PT-45B       | +5V@0.4-3A; +12V@0.2-2A; -12V@0-0.3A     | 45.0W | 90-264@47-440    | 50                       | UL/CUL/TUV/CE | 29.95   | 23.09   | 20.89   |
| 201938          | Mean Well    | PS-65-5      | +5V@0-12A                                | 60.0W | 90-264@47-440    | 100                      | UL/CUL/TUV/CE | 27.95   | 23.95   | 19.95   |
| 148639          | Mean Well    | PS-65-12     | +12V@0-5.2A                              | 62.4W | 90-264@47-440    | 100                      | UL/CUL/TUV/CE | 27.95   | 23.95   | 19.95   |
| 374380          | Mean Well    | PS-65-13.5   | +13.5V@0-5.4A                            | 63.5W | 90-264@47-440    | 100                      | UL/CUL/TUV/CE | 29.95   | 25.29   | 21.99   |
| 216751          | Mean Well    | PS-65-15     | +15V@0-4.2A                              | 63.0W | 90-264@47-440    | 100                      | UL/CUL/TUV/CE | 27.99   | 23.95   | 19.95   |
| 148647          | Mean Well    | PS-65-24     | +24V@0-2.7A                              | 64.8W | 90-264@47-440    | 100                      | UL/CUL/TUV/CE | 29.95   | 25.29   | 21.99   |
| 201946          | Mean Well    | PS-65-27     | +27V@0-2.4A                              | 64.8W | 90-264@47-440    | 100                      | UL/CUL/TUV/CE | 27.95   | 23.95   | 19.95   |
| 201954          | Mean Well    | PS-65-48     | +48V@0-1.35A                             | 64.8W | 90-264@47-440    | 100                      | UL/CUL/TUV/CE | 29.95   | 25.29   | 21.99   |
| 194889          | Mean Well    | PD-65A       | +5V@0.4-7A; +12V@0.2-3.2A                | 61.1W | 90-264@47-440    | 50                       | UL/CUL/TUV/CE | 34.95   | 26.39   | 23.09   |
| 194897          | Mean Well    | PD-65B       | +5V@0.4-3.5A; +24V@0.2-2A                | 65.5W | 90-264@47-440    | 50                       | UL/CUL/TUV/CE | 34.95   | 26.39   | 23.09   |
| 216734          | Mean Well    | PT-65B       | +5V@0.4-5.5A; +12V@0.2-2.5A; -12V@0-0.5A | 63.5W | 90-264@47-440    | 50                       | UL/CUL/TUV/CE | 36.95   | 28.59   | 25.29   |
| 216726          | Mean Well    | PT-65C       | +5V@0.4-5.5A; +15V@0.2-2A; -15V@0-0.5A   | 65.0W | 90-264@47-440    | 50                       | UL/CUL/TUV/CE | 36.95   | 28.59   | 25.29   |
| 215707          | Mean Well    | PT-65D       | +5V@0.5-4A; +12V@0.2-2A; +24V@0.2-1A     | 65.0W | 90-264@47-440    | 50                       | UL/CUL/TUV/CE | 24.95   | 22.45   | 20.19   |
| 394222          | Mean Well    | PT-6503      | +3.3V@0-7A; +5V@0.2-10A; +12V@0-1.2A     | 61.8W | 90-264@47-63     | 50                       | UL/CUL/TUV/CE | 51.35   | 43.65   | 32.74   |

\* Primary Output

## Other Manufacturers – Special Offers at Great Savings – 90-Day Warranty

| Jameco Part No. | Manufacturer | Product No. | Output                           |       | Input (VAC @ Hz) | Size Inches (LxWxD) | Mounting Holes (L"xW"xDia.) | Ripple & Noise (mV p-p)* | Load Reg. (%) | Line Reg. (%) | Certification | Pricing |         |         |
|-----------------|--------------|-------------|----------------------------------|-------|------------------|---------------------|-----------------------------|--------------------------|---------------|---------------|---------------|---------|---------|---------|
|                 |              |             | Voltage@Current (min-max)        | Power |                  |                     |                             |                          |               |               |               | 1       | 10      | 25      |
| 218510          | Artesyn      | NFS40-7605  | +5.1V@0-6A                       | 30.6W | 85-264@47-440    | 5.0x3.0x1.2         | 4.6x2.6x0.16                | 100                      | 2.0           | 0.2           | UL/CSA/DE/CE  | \$41.99 | \$38.99 | \$35.96 |
| 210841          | Power-One    | MAP42-1005  | +5V@0-8A                         | 40.0W | 120-240@50-60    | 5.0x3.0x1.3         | 4.6x2.6x0.16                | 50                       | 1.0           | 0.2           | UL/CSA/TUV/CE | 17.95   | 15.29   | 11.44   |
| 664270          | Power-One    | MAP40-3100  | +5V@3A; +12V@2A; -12V@0.3A       | 40.0W | 85-264@47-63     | 5.0x3.0x1.2         | 4.6x2.6x0.16                | 50                       | 2.0           | 0.2           | UL/CSA/TUV/CE | 39.95   | 34.95   | 29.95   |
| 622539          | Phihong      | PSA-4034    | +5.1V@5-3A; +15V@2-2A; -15V@0.5A | 40.0W | 90-264@47-63     | 5.0x3.0x1.2         | 4.5x2.6x0.16                | 50                       | —             | —             | UL/CSA/DE/CE  | 24.95   | 21.21   | 15.95   |

\* Primary Output

Blue Part No. = Limited Quantity Available

We're Listening to  
What You Need

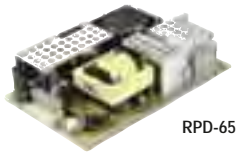
Our goal is to provide you with more of what you want. Let us know how we can better serve your electronics needs. Please send your requests to [NewProducts@Jameco.com](mailto:NewProducts@Jameco.com).

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. This product has a RoHS equivalent, manufacturer may vary.

## 65 to 110-Watt Open-Frame Power Supplies

Enclosed Power Supplies on pages 219-226.

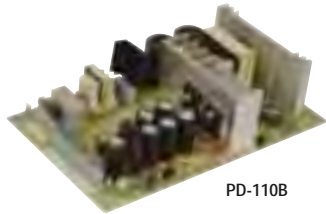
- 100% full burn-in test



RPD-65



LPP-100



PD-110B



### 65-Watt RPD-65 & RPT-65 Series: Dual & Triple Outputs

- Short-circuit/overload/overvoltage protection
- Input: 90-264VAC @ 47-440Hz; 127-370VDC
- Working temp.: -20°C to +60°C
- Mating connectors: P/Ns 236152 & 236187, pg 134
- Line regulation:  $\pm 1.0\%$
- Load regulation:  $\pm 2.0\%$
- Size: 5.0"L x 2.0"W x 1.1"H
- Two-year warranty
- 60W free air convection; 77W with 18 CFM forced air
- 65W free air convection; 80W with 18 CFM forced air



### 75-Watt LPS-75 Series: Single Outputs

- Universal AC input
- Line regulation:  $\pm 1.0\%$
- Voltage adjustment: 10%
- Working temp.: -20°C to +60°C
- Built-in remote ON/OFF
- Load regulation:  $\pm 2.0\%$
- Inrush current: 24A @ 120VAC
- Size: 8.74"L x 2.16"W x 1.18"H
- Two-year warranty
- Weight: 0.5 lbs.



### 100-Watt LPS-100 & LPP-100 Series: Single Output

- Auto-switch AC input
- Line regulation:  $\pm 0.5\%$
- Working temp.: -10°C to +60°C
- No minimum load required
- Voltage adjustment: 10%
- Size: 8.74"L x 2.44" x 1.25"W
- Three-year warranty
- Weight: 0.8 lbs.
- LPS-100 Series:
  - Load regulation:  $\pm 1.5\%$ , except 173463:  $\pm 0.5\%$
  - Inrush current: 30A @ 120VAC
- LPP-100 Series: with Power Factor Correction
  - 4.4 watts/in<sup>2</sup> maximum
  - Load regulation:  $\pm 0.5\%$
  - Isolation voltage: 3000VAC
  - Inrush current: 40A @ 120VAC
  - Leakage current: 2.0mA @ 240V
  - Mounting holes: 8.34"L x 2.04"W x 0.13"Dia.
  - Mating connector: P/N 215950, pg 133



### 110-Watt PD-110B Series: Dual Outputs

- Universal AC input
- Load and line regulation:  $\pm 1.0\%$
- Short-circuit/overload/overvoltage protection
- Size: 7.0"L x 4.3"W x 1.8"H
- Cooling by free air convection
- Ripple and noise: 100mVp-p
- Working temperature: -10°C to +50°C



For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).




| Jameco Part No. | Manufacturer | Product No.  | Output                                  |        | Input (VAC @ Hz) | Ripple & Noise (mV p-p)* | Certification    | Pricing |         |         |
|-----------------|--------------|--------------|---|--------|------------------|--------------------------|------------------|---------|---------|---------|
|                 |              |              | Voltage@Current (min-max)               | Power  |                  |                          |                  | 1       | 10      | 25      |
| 668781          | Mean Well    | RPD-65C      | +5V@0-1.5A; +12V@0-5.8A                 | 60.0W  | 90-264@47-440    | 120                      | UL/CUL/TUV/CE/CB | \$35.35 | \$33.19 | \$31.35 |
| 668799          | Mean Well    | RPD-65D      | +5V@0-1.5A; +24V@0-2.9A                 | 60.0W  | 90-264@47-440    | 150                      | UL/CUL/TUV/CE/CB | 35.35   | 33.19   | 31.35   |
| 668801          | Mean Well    | RPT-65E      | +5V@0-1.5A; +12V@0.18-5.8A; -5V@0-0.7A  | 62.5W  | 90-264@47-440    | 120                      | UL/CUL/TUV/CE/CB | 37.65   | 35.45   | 33.45   |
| 668810          | Mean Well    | RPT-65F      | +5V@0-1.5A; +12V@0.18-5.8A; -12V@0-0.7A | 66.0W  | 90-264@47-440    | 150                      | UL/CUL/TUV/CE/CB | 37.65   | 35.45   | 33.45   |
| 668828          | Mean Well    | RPT-65G      | +5V@0-1.5A; +12V@0-0.7A; +24V@0.09-2.9A | 66.0W  | 90-264@47-440    | 150                      | UL/CUL/TUV/CE/CB | 37.65   | 35.45   | 33.45   |
| 244727          | Mean Well    | LPS-75-24    | +24V@0-3.5A                             | 76.8W  | 90-264@47-63     | 120                      | UL/CUL/TUV/CE    | 34.95   | 29.95   | 25.95   |
| 173472          | Mean Well    | LPS-100-12   | +12V@0-8.4A                             | 100.8W | 88-264@47-63     | 100                      | UL/CUL/TUV/CE    | 52.95   | 48.39   | 42.89   |
| 374345          | Mean Well    | LPS-100-13.5 | +13.5V@0-7.5A                           | 101.3W | 88-264@47-63     | 100                      | UL/CUL/TUV/CE    | 52.95   | 48.39   | 42.89   |
| 173463          | Mean Well    | LPS-100-24   | +24V@0-4.2A                             | 100.8W | 88-264@47-63     | 150                      | UL/CUL/TUV/CE    | 52.95   | 48.39   | 42.89   |
| 216710          | Mean Well    | LPS-100-48   | +48V@0-2.1A                             | 100.8W | 88-264@47-63     | 200                      | UL/CUL/TUV/CE    | 52.95   | 45.01   | 33.76   |
| 216689          | Mean Well    | LPP-100-12   | +12V@0-8.5A                             | 102.0W | 85-264@47-63     | 100                      | UL/CUL/TUV/CE    | 57.39   | 51.65   | 46.49   |
| 204611          | Mean Well    | LPP-100-24   | +24V@0-4.2A                             | 100.8W | 85-264@47-63     | 150                      | UL/CUL/TUV/CE    | 64.95   | 55.21   | 41.41   |
| 375056          | Mean Well    | PD-110B      | +5V@0.5-5A; +24V@0.5-3.5A               | 109.0W | 100-264@47-63    | 100                      | UL/CUL/TUV/CE    | 55.95   | 47.56   | 35.67   |

\* Primary Output

| Other Manufacturers – Special Offers at Great Savings – 90-Day Warranty |              |              |  |        |                  |                     |                             |                          |               |               |                   | Quantity SAVE |         |         |
|---|--------------|--------------|--|--------|------------------|---------------------|-----------------------------|--------------------------|---------------|---------------|-------------------|---------------|---------|---------|
| Jameco Part No.   | Manufacturer | Product No.  | Output                                   |        | Input (VAC @ Hz) | Size Inches (LxWxH) | Mounting Holes (L"xW"xDia.) | Ripple & Noise (mV p-p)* | Load Reg. (%) | Line Reg. (%) | Certification     | Pricing       |         |         |
|   |              |              | Voltage@Current (min-max)                | Power  |                  |                     |                             |                          |               |               |                   | 1             | 10      | 25      |
| 673934  | Martek       | PVI-50-46BUB | +5V@6.5; +3.3@2.5; +12@0.8; -12@0.5      | 57.0W  | 100-240@50-60    | 8.1x3.2x1.5         | —                           | —                        | —             | —             | UL/CUL/CSA/TUV/CE | \$15.95       | \$13.95 | \$11.49 |
| 226211  | Phihong      | PSA-60-302   | +5V@6A; +12V@1.2A; -12V@1.2A             | 60.0W  | 100-240@50-60    | 5.0x3.0x1.6         | 4.5x2.5x0.15                | 50                       | 2.0           | 2.0           | UL/CSA/VDE        | 29.95         | 25.46   | 19.09   |
| 171731  | Delta        | DPS-60MPB    | +3.3V@0.8-8A; +5V@1-9A                   | 65.0W  | 90-270@47-63     | 5.8x3.3x1.4         | —                           | 50                       | 2.0           | 2.0           | UL/CUL/TUV        | 7.95          | 6.76    | 5.07    |
| 692377  | Autec        | UPS65-1002   | +5V@0.5-3.5A; +12V@0.1-4A                | 65.0W  | 90-260@47-63     | 6.0x3.5x1.5         | 4.8x3.2x0.16                | 50                       | 2.0           | 0.5           | UL/CSA/TUV        | 15.95         | 14.35   | 12.59   |
| 235088  | Artesyn      | NLP65-7629   | +5V@0-7A; +12V@0-2.5A                    | 65.0W  | 85-264@47-63     | 5.0x3.0x1.3         | 4.6x2.6x0.16                | 50                       | 2.0           | 2.0           | UL/CUL/CSA/CE     | 28.35         | 25.75   | 23.45   |
| 229850  | IPD Power    | SRW-65-3003  | +5V@5A; +15V@3.5A; -15V@1A               | 65.0W  | 85-264@47-63     | 6.0x4.0x1.1         | 5.7x3.5x0.15                | 50                       | 1.0           | —             | UL/CUL/TUV/CE     | 22.95         | 19.51   | 14.63   |
| 218915  | Artesyn      | NLP110-9605  | +5V@0.5-15A                              | 75.0W  | 90-264@47-63     | 6.5x3.0x1.3         | 6.1x2.6x0.16                | 50                       | 2.0           | 2.0           | UL/CUL/CSA/VDE    | 59.59         | 52.73   | 47.46   |
| 218931  | Artesyn      | NLP110-9624  | +24V@0.2-3.2A                            | 76.8W  | 90-264@47-63     | 6.5x3.0x1.3         | 6.1x2.6x0.16                | 240                      | 2.0           | 2.0           | UL/CUL/CSA/VDE    | 78.15         | 70.31   | 63.28   |
| 202876  | Power-One    | MAP80-4003   | +5V@14A; +15V@3.5A; -5V@1A; -15V@1A      | 80.0W  | 100-230@47-63    | 7.2x4.3x1.8         | 6.7x3.2x0.17                | 50                       | 1.0           | 0.2           | UL/CSA/TUV/CE     | 19.95         | 16.96   | 12.72   |
| 237024  | Lite-On      | PA-1101-1    | +12V@2-8.5A                              | 102.0W | 85-264@47-63     | 6.0x4.0x1.3         | —                           | 1200                     | 10.0          | 1.0           | UL/CUL/TUV/CE     | 19.95         | 16.96   | 12.72   |
| 218940  | Artesyn      | NLP110-9693  | +3.3V@0.2-13A; +5V@0.5-13A; +12V@0-0.65A | 110.0W | 90-264@47-63     | 6.5x3.0x1.3         | 6.1x2.6x0.16                | 50                       | 2.0           | 2.0           | UL/CUL/CSA/VDE    | 78.15         | 70.31   | 63.28   |
| 645298  | Mean Well    | PQ-100DTR    | +5V@5A; +12V@2A; +24V@2A; -12V@.3A       | 103.0W | 100-264@47-63    | 7.0x4.3x1.8         | 6.5x3.8x0.16                | 80                       | 1.0           | 1.0           | —                 | 44.95         | 38.25   | 28.65   |

\* Primary Output

Blue Part No. = Limited Quantity Available

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.  This product has a RoHS equivalent, manufacturer may vary.

# 110 to 350W Open-Frame Switching AC-to-DC Power Supplies

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |

## 125 to 350-Watt Open-Frame Power Supplies w/ Power Factor Correction

Enclosed Power Supplies on pages 219-226.

- 100% full burn-in test
- Line regulation:  $\pm 0.5\%$
- Three-year warranty



PPS-125



LPP-150



USP-350



### 125-Watt PPS-125 & PPT-125 Series: Single & Triple Outputs

- Universal AC input
- Size: 5.0"L x 3.0"W x 1.4"H
- PPS-125 Series: Single Output
- PPT-125 Series: Triple Output
- Load regulation:  $\pm 1.0\%$
- Working temp.: -40°C to +85°C
- Load regulation:  $\pm 3.0\%$
- Working temp.: -20°C to +60°C



### 150-Watt LPP-150 Series: Single Output

- Voltage adjustment: 10%
- Auto-switch AC input
- Load regulation: 213681, 375065 & 392771:  $\pm 1.0\%$ ; 213672, 216646 & 392789:  $\pm 0.5\%$
- Mating connectors: P/N 215950 & 215968, pg 134
- Working temp.: -10°C to +60°C
- Size: 8.74"L x 2.95"W x 1.61"H



### 200-Watt PPS-200 Series: Single Output

- High efficiency up to 90% (typical)
- PWM control & regulated
- Free air convection for 150W; 20.5 CFM forced air for 200W
- Load regulation:  $\pm 1.0\%$
- Short-circuit/overload/overvoltage protection
- Mating connectors: P/N 236152, pg 134
- Working temp.: -20°C to +70°C
- Size: 5.0"L x 3.0"W x 1.4"H



### 225 & 350-Watt U Bracket Type USP-225 & USP-350 Series: Single Output

- Active AC surge current limiting
- Load regulation:  $\pm 1.0\%$
- Short-circuit/overload/overvoltage/overtemperature protection
- USP-225 Series: Single Output
- Size: 8.0"L x 4.0"W x 1.5"H
- Free air convection for 150W and forced air convection for 225W
- Mating connectors: P/N 236152 or 463435 (input), pg 135; P/N 303651 (output), pg 135
- Working temp.: -20°C to +65°C
- USP-350 Series: Single Output
- Size: 9.3"L x 4.0"W x 1.5"H
- Free air convection for 300W; 23.5 CFM forced air for 350W
- Working temp.: -10°C to +65°C



For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

Lower \$\$\$

| Jameco Part No. | Manufacturer | Product No.  | Output                                    |        | Input (VAC @ Hz) | Ripple & Noise (mV p-p)* | Certification    | Pricing |         |         |
|-----------------|--------------|--------------|---|--------|------------------|--------------------------|------------------|---------|---------|---------|
|                 |              |              | Voltage@Current (min-max)                 | Power  |                  |                          |                  | 1       | 10      | 25      |
| 374089          | Mean Well    | PPS-125-12   | +12V@0-10.5A                              | 126.0W | 90-264@47-63     | 100                      | UL/CUL/TUV/CE    | \$93.99 | \$79.84 | \$74.45 |
| 374097          | Mean Well    | PPS-125-15   | +15V@0-8.4A                               | 126.0W | 90-264@47-63     | 100                      | UL/CUL/TUV/CE    | 93.99   | 79.84   | 74.45   |
| 301429          | Mean Well    | PPS-125-24   | +24V@0-5.2A                               | 124.8W | 90-264@47-63     | 150                      | UL/CUL/TUV/CE    | 93.99   | 79.84   | 74.45   |
| 301487          | Mean Well    | PPT-125B     | +5V@1-14.4A; +12V@3-3.8A; -12V@0.05-0.63A | 124.5W | 90-264@47-63     | 100                      | UL/CUL/TUV/CE    | 103.55  | 79.86   | 74.45   |
| 213681          | Mean Well    | LPP-150-12   | +12V@0-12.5A                              | 150.0W | 85-264@47-63     | 100                      | UL/CUL/TUV/CE    | 68.45   | 64.60   | 61.37   |
| 392771          | Mean Well    | LPP-150-13.5 | +13.5V@0-11.2A                            | 151.2W | 85-264@47-63     | 100                      | UL/CUL/TUV/CE    | 69.95   | 63.95   | 53.95   |
| 375065          | Mean Well    | LPP-150-15   | +15V@0-10.0A                              | 150.0W | 85-264@47-63     | 100                      | UL/CUL/TUV/CE    | 68.45   | 64.60   | 61.37   |
| 213672          | Mean Well    | LPP-150-24   | +24V@0-6.3A                               | 150.0W | 85-264@47-63     | 150                      | UL/CUL/TUV/CE    | 68.45   | 64.60   | 61.37   |
| 392789          | Mean Well    | LPP-150-27   | +27V@0-5.6A                               | 151.2W | 85-264@47-63     | 150                      | UL/CUL/TUV/CE    | 69.95   | 53.89   | 47.29   |
| 216646          | Mean Well    | LPP-150-48   | +48V@0-3.2A                               | 153.6W | 85-264@47-63     | 250                      | UL/CUL/TUV/CE    | 68.45   | 64.60   | 61.37   |
| 668705          | Mean Well    | PPS-200-5    | +5V@0-36A                                 | 180.0W | 90-264@47-63     | 80                       | UL/CUL/TUV/CE    | 109.89  | 99.69   | 94.15   |
| 668713          | Mean Well    | PPS-200-12   | +12V@0-16.6A                              | 199.2W | 90-264@47-63     | 100                      | UL/CUL/TUV/CE    | 105.89  | 99.69   | 94.15   |
| 668721          | Mean Well    | PPS-200-15   | +15V@0-13.3A                              | 199.5W | 90-264@47-63     | 100                      | UL/CUL/TUV/CE    | 158.95  | 149.65  | 141.35  |
| 668730          | Mean Well    | PPS-200-24   | +24V@0-8.3A                               | 199.2W | 90-264@47-63     | 150                      | UL/CUL/TUV/CE    | 158.95  | 149.65  | 141.35  |
| 668748          | Mean Well    | PPS-200-27   | +27V@0-7.4A                               | 199.8W | 90-264@47-63     | 150                      | UL/CUL/TUV/CE    | 158.95  | 149.65  | 141.35  |
| 694452          | Mean Well    | USP-225-3.3  | +3.3V@0-40A                               | 132.0W | 90-264@47-63     | 100                      | UL/CUL/TUV/CE/CB | 126.99  | 121.25  | 100.88  |
| 694461          | Mean Well    | USP-225-5    | +5V@0-40A                                 | 200.0W | 90-264@47-63     | 100                      | UL/CUL/TUV/CE/CB | 126.99  | 121.25  | 100.88  |
| 694479          | Mean Well    | USP-225-12   | +12V@0-18.7A                              | 224.4W | 90-264@47-63     | 100                      | UL/CUL/TUV/CE/CB | 126.99  | 121.25  | 100.88  |
| 694487          | Mean Well    | USP-225-15   | +15V@0-15A                                | 225.0W | 90-264@47-63     | 100                      | UL/CUL/TUV/CE/CB | 126.99  | 121.25  | 100.88  |
| 694495          | Mean Well    | USP-225-24   | +24V@0-9.4A                               | 225.6W | 90-264@47-63     | 150                      | UL/CUL/TUV/CE/CB | 126.99  | 121.25  | 100.88  |
| 694508          | Mean Well    | USP-225-48   | +48V@0-4.7A                               | 225.6W | 90-264@47-63     | 250                      | UL/CUL/TUV/CE/CB | 126.99  | 121.25  | 100.88  |
| 694399          | Mean Well    | USP-350-3.3  | +3.3V@0-70A                               | 231.0W | 90-264@47-63     | 80                       | UL/CUL/TUV/CE    | 203.59  | 197.49  | 191.55  |
| 694401          | Mean Well    | USP-350-5    | +5V@0-70A                                 | 350.0W | 90-264@47-63     | 80                       | UL/CUL/TUV/CE    | 203.59  | 197.49  | 191.55  |
| 694410          | Mean Well    | USP-350-12   | +12V@0-29.2A                              | 350.4W | 90-264@47-63     | 100                      | UL/CUL/TUV/CE    | 203.59  | 197.49  | 191.55  |
| 694428          | Mean Well    | USP-350-15   | +15V@0-23.4A                              | 351.0W | 90-264@47-63     | 100                      | UL/CUL/TUV/CE    | 203.59  | 197.49  | 191.55  |
| 694436          | Mean Well    | USP-350-24   | +24V@0-14.6A                              | 350.4W | 90-264@47-63     | 150                      | UL/CUL/TUV/CE    | 203.59  | 197.49  | 191.55  |
| 668756          | Mean Well    | USP-350-48   | +48V@0-7.3A                               | 300.0W | 90-264@47-63     | 150                      | UL/CUL/TUV/CE    | 203.59  | 197.49  | 191.55  |

\* Primary Output

## Other Manufacturers – Special Offers at Great Savings – 90-Day Warranty

SALE

| Jameco Part No. | Mfr.        | Product No.  | Output                    |        | Input (VAC @ Hz) | Size Inches (LxWxH) | Mounting Holes (LxWxDia.) | Ripple & Noise (mV p-p)* | Load Reg. (%) | Line Reg. (%) | Certification | Pricing |         |         |
|-----------------|-------------|--------------|---------------------------|--------|------------------|---------------------|---------------------------|--------------------------|---------------|---------------|---------------|---------|---------|---------|
|                 |             |              | Voltage@Current (min-max) | Power  |                  |                     |                           |                          |               |               |               | 1       | 10      | 25      |
| 670813          | Intl. Power | PM110-13A    | +15V@0-7.5A               | 110.0W | 85-264@47-63     | 7.0x4.3x1.9         | 6.5x3.8x0.16              | 15                       | —             | —             | UL/CSA/TUV    | \$59.95 | \$50.99 | \$38.22 |
| 219011          | Artesyn     | NLP150L-96S5 | +5.1V@1-22A               | 112.2W | 90-264@47-63     | 6.8x3.8x1.3         | 6.5x3.5x0.16              | 50                       | 2.0           | 2.0           | UL/CSA/VDE/CE | 79.55   | 71.56   | 64.40   |
| 219002          | Artesyn     | NLP150L-96S8 | +24V@0.15-4.6A            | 110.4W | 90-264@47-63     | 6.8x3.8x1.3         | 6.5x3.5x0.16              | 240                      | 2.0           | 2.0           | UL/CSA/VDE/CE | 92.75   | 83.49   | 75.14   |

♣ Pull = Extra Savings

\* Primary Output

♣ Blue Part No. = Limited Quantity Available

♣ RoHS compliant product

♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

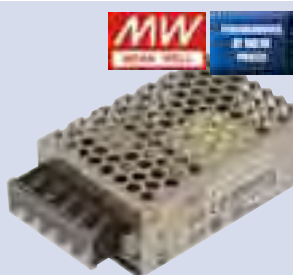


# 15 to 45W Enclosed Switching AC-to-DC Power Supplies

## 25-Watt Enclosed

### RS-25 Series: Single Output

- New smaller design: 3.0" x 2.0" x 1.1"
- 3.66 watts/in<sup>3</sup> power density
- 100% full-load burn-in
- Universal AC input: 88-264VAC @ 47-63Hz
- Short-circuit/overload/overvoltage protection
- 105°C output capacitor
- Withstanding voltage of 300VAC surge input for 5 seconds
- Cooling by free air convection
- Mating connector: 103588, pg 162
- High operating temperature up to 70°C
- Three-year warranty



## 25-Watt Enclosed

### S-25 Series: Single Output

- 100% full-load burn-in
- Universal AC input: 88-264VAC @ 47-63Hz, 120-370VDC
- No minimum load required
- 1.2 watts/in<sup>3</sup> maximum
- Voltage adjustment: 10%
- Mating connector: 103588, pg 162
- Working temperature: -10°C to +60°C
- Mounting hardware: use P/Ns 222121, 222156, 222172 & 222164 (see web)
- See [www.Jameco.com](http://www.Jameco.com) for specifications
- Two-year warranty



## 35-Watt Enclosed

### RS-35 & RD-35 Series: Single & Dual Output

- New smaller design: 3.9" x 3.2" x 1.4"
- 2 watts/in<sup>3</sup> power density
- 100% full-load burn-in
- Universal AC input: 88-264VAC @ 47-63Hz
- Short-circuit/overload/overvoltage protection
- 105°C output capacitors
- Withstanding voltage of 300VAC surge input for 5 seconds
- Cooling by free air convection
- Mating connector: 103588, pg 162
- High operating temperature up to 70°C
- Three-year warranty



## 40-Watt Enclosed

### S-40 & T-40 Series: Single & Triple Output

- 100% full-load burn-in
- Universal AC input: 88-264VAC @ 47-63Hz, 120-370VDC
- 1.6 watts/in<sup>3</sup> maximum
- Voltage adjustment: 10%
- Mating connector: P/N 103588, pg 162
- Working temperature: -10°C to +60°C
- Mounting hardware: use P/Ns 222121, 222156 & 222172 (see web)
- See [www.Jameco.com](http://www.Jameco.com) for specifications
- Two-year warranty



Open-Frame Power Supplies  
on pages 214-218.

For PC Power Supplies, see page 262.

Lower \$\$\$

| Jameco Part No. | Manufacturer | Product No. | Output                                   |       | Ripple & Noise (mV p-p)* | Load Reg. (±%)* | Line Reg. (±%)* | Certification    | Pricing |         |         |
|-----------------|--------------|-------------|--|-------|--------------------------|-----------------|-----------------|------------------|---------|---------|---------|
|                 |              |             | Voltage@Current (min-max)                | Power |                          |                 |                 |                  | 1       | 10      | 25      |
| 693193          | Mean Well    | RS-25-3.3   | +3.3V@0-6A                               | 19.8W | 80                       | 2               | 0.5             | UL/CUL/TUV/CE/CB | \$29.09 | \$25.23 | \$23.28 |
| 323282          | Mean Well    | RS-25-5     | +5V@0-5A                                 | 25.0W | 80                       | 1               | 0.5             | UL/CUL/TUV/CE/CB | 29.09   | 25.23   | 23.28   |
| 323300          | Mean Well    | RS-25-12    | +12V@0-2.1A                              | 25.2W | 120                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 29.09   | 25.23   | 23.28   |
| 323302          | Mean Well    | RS-25-15    | +15V@0-1.7A                              | 25.5W | 120                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 27.55   | 23.75   | 22.59   |
| 323311          | Mean Well    | RS-25-24    | +24V@0-1.1A                              | 26.4W | 120                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 29.09   | 25.23   | 23.28   |
| 693206          | Mean Well    | RS-25-48    | +48V@0-0.57A                             | 27.4W | 200                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 29.09   | 25.23   | 23.28   |
| 123247          | Mean Well    | S-25-5      | +5V@0-5A                                 | 25.0W | 50                       | 1               | 0.5             | UL/TUV/CE        | 39.95   | 32.10   | 28.90   |
| 123255          | Mean Well    | S-25-12     | +12V@0-2.1A                              | 25.2W | 100                      | 0.5             | 0.5             | UL/TUV/CE        | 39.95   | 32.10   | 28.90   |
| 123263          | Mean Well    | S-25-15     | +15V@0-1.7A                              | 25.5W | 100                      | 0.5             | 0.5             | UL/TUV/CE        | 39.95   | 32.10   | 28.90   |
| 123272          | Mean Well    | S-25-24     | +24V@0-1.1A                              | 26.4W | 100                      | 0.5             | 0.5             | UL/TUV/CE        | 39.95   | 32.10   | 28.90   |
| 639214          | Mean Well    | RS-35-3.3   | +3.3V@0-7A                               | 23.1W | 80                       | 2               | 0.5             | UL/CUL/TUV/CE/CB | 36.89   | 36.89   | 30.99   |
| 323329          | Mean Well    | RS-35-5     | +5V@0-7A                                 | 35.0W | 80                       | 1               | 0.5             | UL/CUL/TUV/CE/CB | 34.25   | 28.55   | 27.15   |
| 323337          | Mean Well    | RS-35-12    | +12V@0-3A                                | 36.0W | 120                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 36.89   | 30.99   | 28.13   |
| 323345          | Mean Well    | RS-35-15    | +15V@0-2.4A                              | 36.0W | 120                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 36.89   | 30.99   | 28.13   |
| 323353          | Mean Well    | RS-35-24    | +24V@0-1.5A                              | 36.0W | 120                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 36.99   | 30.99   | 28.13   |
| 693222          | Mean Well    | RS-35-48    | +48V@0-0.8A                              | 38.4W | 200                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 36.99   | 30.99   | 28.13   |
| 323362          | Mean Well    | RD-35A      | +5V@0.3-4A; +12V@0.2-1A                  | 32.0W | 80                       | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 37.05   | 32.35   | 30.75   |
| 323380          | Mean Well    | RD-35B      | +5V@0.3-4A; +24V@0.2-1.3A                | 51.2W | 80                       | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 37.05   | 32.35   | 30.75   |
| 123290          | Mean Well    | S-40-5      | +5V@0-8A                                 | 40.0W | 75                       | 1               | 0.5             | UL/CUL/TUV/CE/CB | 44.95   | 38.60   | 34.70   |
| 123298          | Mean Well    | S-40-12     | +12V@0-3.5A                              | 42.0W | 100                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 44.95   | 38.60   | 34.70   |
| 202140          | Mean Well    | S-40-15     | +15V@0-2.8A                              | 42.0W | 100                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 44.95   | 38.60   | 34.70   |
| 123319          | Mean Well    | S-40-24     | +24V@0-1.8A                              | 43.0W | 100                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 44.95   | 38.60   | 34.70   |
| 201989          | Mean Well    | T-40A       | +5V@0.6-3A; +12V@0.2-2A; -5V@0.1-0.5A    | 41.5W | 100                      | 0.5             | 0.5             | CSA/CE           | 49.95   | 42.46   | 31.84   |
| 201997          | Mean Well    | T-40B       | +5V@0.6-3A; +12V@0.2-2A; -12V@0.1-0.5A   | 45.0W | 100                      | 0.5             | 0.5             | CSA/CE           | 49.95   | 42.10   | 37.90   |
| 202009          | Mean Well    | T-40C       | +5V@0.6-3A; +15V@0.2-1.5A; -15V@0.1-0.5A | 45.0W | 100                      | 0.5             | 0.5             | CSA/CE           | 49.95   | 42.10   | 37.90   |



Call for special versions and large quantities

\* Primary Output

## Other Manufacturers – Special Offers at Great Savings – 90-Day Warranty

| Jameco Part No. | Manufacturer | Product No. | Output                    |       | Ripple & Noise (mV p-p)* | Load Reg. (±%)* | Line Reg. (±%)* | Certification | Pricing |         |         |
|-----------------|--------------|-------------|---------------------------|-------|--------------------------|-----------------|-----------------|---------------|---------|---------|---------|
|                 |              |             | Voltage@Current (min-max) | Power |                          |                 |                 |               | 1       | 10      | 25      |
| 689848          | Potrans      | 1M150C05-1M | +5V@0-3.0A                | 15.0W | 100                      | 0.5             | 1.0             | UL/CUL/TUV/CE | \$22.95 | \$20.49 | \$18.95 |
| 692422          | Volgen       | SX15U-05S   | +5V@3.0A                  | 15.0W | 100                      | —               | —               | UL/CSA        | 19.95   | 17.95   | 16.15   |
| 689805          | Potrans      | 1M041C05-1M | +5V@0-8.0A                | 40.0W | 75                       | —               | —               | UL/CUL/TUV/CE | 38.95   | 35.00   | 29.95   |
| 689830          | Potrans      | 1M041C12-1M | +12V@0-3.5A               | 42.0W | 100                      | —               | —               | UL/CUL/TUV/CE | 38.95   | 35.00   | 29.95   |
| 689792          | Potrans      | 1M041C24-1M | +24V@0-1.8A               | 43.0W | 100                      | —               | —               | UL/CUL/TUV/CE | 38.95   | 35.00   | 29.95   |

\* Primary Output

 RoHS compliant product
  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.
 [Details on page 1.](#)

# 50 to 75-Watt Enclosed Switching AC-to-DC Power Supplies

Color Code Legend  
New Sale Lower\$ QtySave

## 50-Watt Enclosed

RS-50, RD-50, RT-50, & RQ-50 Series:  
Single, Dual, Triple & Quad Output

- 100% full-load burn-in
- Three-year warranty
- See [www.Jameco.com](http://www.Jameco.com) for specifications

UL US CE CB

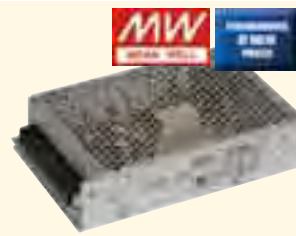


## 60-Watt Enclosed

S-60, D-60, T-60 & Q-60 Series:  
Single, Dual, Triple & Quad Outputs

- 100% full-load burn-in
- Two-year warranty
- See [www.Jameco.com](http://www.Jameco.com) for specifications

UL US CE CB



## 65-Watt Enclosed

RD-65, RT-65 & RQ-65 Series:  
Dual, Triple & Quad Outputs

- 100% full-load burn-in
- Three-year warranty
- See [www.Jameco.com](http://www.Jameco.com) for specifications

UL US CE CB



## 75-Watt Enclosed with Power Factor Correction

RS-75 Series: Single Output

- 100% full-load burn-in
- Three-year warranty
- See [www.Jameco.com](http://www.Jameco.com) for specifications

UL US CE CB



Open-Frame Power Supplies  
on pages 214-218.

For PC Power Supplies, see page 262.

| Jameco Part No. | Manufacturer | Product No. | Output   |       | Ripple & Noise (mV p-p)* | Load Reg. (±%)* | Line Reg. (±%)* | Certification    | Pricing |         |         |
|-----------------|--------------|-------------|--|-------|--------------------------|-----------------|-----------------|------------------|---------|---------|---------|
|                 |              |             | Voltage@Current (min-max)                          | Power |                          |                 |                 |                  | 1       | 10      | 25      |
| 693231          | Mean Well    | RS-50-3.3   | +3.3V@0-10A  | 33.0W | 80                       | 2               | 0.5             | UL/CUL/TUV/CE/CB | \$39.79 | \$33.95 | \$32.93 |
| 323388          | Mean Well    | RS-50-5     | +5V@0-10A  | 50.0W | 80                       | 1               | 0.5             | UL/CUL/TUV/CE/CB | 39.79   | 33.95   | 32.93   |
| 323396          | Mean Well    | RS-50-12    | +12V@0-4.2A  | 50.4W | 120                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 39.79   | 33.95   | 32.93   |
| 323409          | Mean Well    | RS-50-15    | +15V@0-3.4A  | 51.0W | 120                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 39.79   | 33.95   | 32.93   |
| 323417          | Mean Well    | RS-50-24    | +24V@0-2.2A  | 52.8W | 120                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 39.79   | 33.95   | 32.93   |
| 693249          | Mean Well    | RS-50-48    | +48V@0-1.1A  | 52.8W | 200                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 39.79   | 33.95   | 32.93   |
| 323425          | Mean Well    | RD-50A      | +5V@0.3-6A; +12V@0.3-3A                            | 54.0W | 80                       | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 39.95   | 34.25   | 32.55   |
| 323433          | Mean Well    | RD-50B      | +5V@0.3-6A; +24V@0.2-2A                            | 53.6W | 80                       | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 39.95   | 34.25   | 32.55   |
| 323442          | Mean Well    | RT-50A      | +5V@0.5-5A; +12V@0.2-2.5A; -5V@0.5-5A              | 46.5W | 80                       | 1               | 0.5             | UL/CUL/TUV/CE/CB | 41.85   | 36.15   | 34.35   |
| 323460          | Mean Well    | RT-50B      | +5V@0.5-5A; +12V@0.2-2.5A; -12V@0.1-1A             | 50.0W | 80                       | 1               | 0.5             | UL/CUL/TUV/CE/CB | 41.85   | 36.15   | 34.35   |
| 323468          | Mean Well    | RT-50C      | +5V@0-5A; +15V@0.2-2A; -15V@0.1-1A                 | 50.0W | 80                       | 1               | 0.5             | UL/CUL/TUV/CE/CB | 41.85   | 36.15   | 34.35   |
| 323476          | Mean Well    | RT-50D      | +5V@0.5-5A; +12V@0.1-1A; +24V@0.2-1.5A             | 51.0W | 80                       | 1               | 0.5             | UL/CUL/TUV/CE/CB | 41.85   | 36.15   | 34.35   |
| 323484          | Mean Well    | RQ-50B      | +5V@0.5-6A; +12V@0.2-1.5A; -5V@0-1A; -12V@0-1A     | 45.5W | 80                       | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 43.75   | 37.05   | 35.25   |
| 323492          | Mean Well    | RQ-50D      | +5V@0.5-6A; +12V@0.2-1.5A; +24V@0.1-1A; -12V@0-1A  | 53.4W | 80                       | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 43.75   | 37.05   | 35.25   |
| 123327          | Mean Well    | S-60-5      | +5V@0-12A  | 60.0W | 120                      | 1               | 0.5             | UL/CUL/TUV/CE/CB | 53.95   | 48.55   | 42.99   |
| 123335          | Mean Well    | S-60-12     | +12V@0-5A  | 60.0W | 120                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 53.95   | 41.50   | 37.30   |
| 123343          | Mean Well    | S-60-15     | +15V@0-4A  | 60.0W | 150                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 53.95   | 41.50   | 37.30   |
| 123352          | Mean Well    | S-60-24     | +24V@0-2.5A  | 60.0W | 150                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 53.95   | 41.50   | 37.30   |
| 123458          | Mean Well    | D-60A       | +5V@0.3-4A; +12V@0.2-3A                            | 56.0W | 75                       | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 54.95   | 44.10   | 39.70   |
| 123466          | Mean Well    | D-60B       | +5V@0.3-3A; +24V@0.2-1.8A                          | 58.0W | 75                       | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 54.95   | 44.10   | 39.70   |
| 123482          | Mean Well    | T-60B       | +5V@0.5-5A; +12V@0.2-2.5A; -5V@0-1A; -12V@0-0.5A   | 61.0W | 100                      | 1               | 0.5             | UL/CUL/TUV/CE/CB | 57.95   | 47.00   | 42.30   |
| 123491          | Mean Well    | T-60C       | +5V@0.5-5A; +15V@0.2-2A; -15V@0-0.5A               | 62.5W | 100                      | 1               | 0.5             | UL/CUL/TUV/CE/CB | 57.95   | 47.00   | 42.30   |
| 147046          | Mean Well    | Q-60B       | +5V@0.5-5.5A; +12V@0.1-2A; -5V@0-0.5A; -12V@0-0.5A | 60.0W | 100                      | 0.5             | 0.5             | UL/CUL/CE/CB     | 59.95   | 49.90   | 44.90   |
| 323505          | Mean Well    | RD-65A      | +5V@0.3-8A; +12V@0.2-4A                            | 66.0W | 80                       | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 43.75   | 37.05   | 35.25   |
| 323513          | Mean Well    | RD-65B      | +5V@0.3-8A; +24V@0.2-3A                            | 68.0W | 80                       | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 43.75   | 37.05   | 35.25   |
| 323522          | Mean Well    | RT-65A      | +5V@0.5-8A; +12V@0.2-3.5A; -5V@0-1A                | 66.1W | 80                       | 1               | 0.5             | UL/CUL/TUV/CE/CB | 47.55   | 39.95   | 37.95   |
| 323540          | Mean Well    | RT-65B      | +5V@0.5-8A; +12V@0.2-3.5A; -12V@0-1A               | 64.6W | 80                       | 1               | 0.5             | UL/CUL/TUV/CE/CB | 47.55   | 39.95   | 37.95   |
| 323548          | Mean Well    | RT-65C      | +5V@0.5-8A; +15V@0.2-3A; -15V@0-1A                 | 65.5W | 80                       | 1               | 0.5             | UL/CUL/TUV/CE/CB | 47.55   | 39.95   | 37.95   |
| 323556          | Mean Well    | RT-65D      | +5V@0.5-8A; +12V@0.1-1A; +24V@0.2-2A               | 68.0W | 80                       | 1               | 0.5             | UL/CUL/TUV/CE/CB | 47.55   | 39.95   | 37.95   |
| 323564          | Mean Well    | RQ-65B      | +5V@0.5-8A; +12V@0.2-3A; -5V@0-1A; -12V@0-1A       | 62.5W | 80                       | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 48.45   | 40.85   | 38.85   |
| 323572          | Mean Well    | RQ-65D      | +5V@0.5-8A; +12V@0.2-3A; +24V@0.1-1.5A; -12V@0-1A  | 68.0W | 80                       | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 48.45   | 40.85   | 38.85   |
| 693257          | Mean Well    | RS-75-3.3   | +3.3V@0-15A  | 49.5W | 80                       | 2               | 0.5             | UL/CUL/TUV/CE/CB | 44.65   | 37.83   | 36.69   |
| 323581          | Mean Well    | RS-75-5     | +5V@0-12A  | 60.0W | 80                       | 1               | 0.5             | UL/CUL/TUV/CE/CB | 44.65   | 37.83   | 36.69   |
| 323599          | Mean Well    | RS-75-12    | +12V@0-6A  | 72.0W | 120                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 44.65   | 37.83   | 36.69   |
| 323602          | Mean Well    | RS-75-15    | +15V@0-5A  | 75.0W | 120                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 41.85   | 35.15   | 33.39   |
| 323620          | Mean Well    | RS-75-24    | +24V@0-3.2A  | 76.8W | 120                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 44.65   | 37.83   | 36.69   |
| 693265          | Mean Well    | RS-75-48    | +48V@0-1.6A  | 76.8W | 200                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 44.65   | 37.83   | 36.69   |

\* Primary Output

## Other Manufacturers – Special Offers at Great Savings – 90-Day Warranty

| Jameco Part No. | Manufacturer | Product No. | Output                    |       | Ripple & Noise (mV p-p)* | Load Reg. (±%)* | Line Reg. (±%)* | Certification | Pricing |         |         |
|-----------------|--------------|-------------|---------------------------|-------|--------------------------|-----------------|-----------------|---------------|---------|---------|---------|
|                 |              |             | Voltage@Current (min-max) | Power |                          |                 |                 |               | 1       | 10      | 25      |
| 689784          | Potrans      | 1M051C05-0M | +5V@10.0A                 | 50.0W | —                        | —               | —               | UL/CUL        | \$34.95 | \$31.00 | \$27.95 |
| 689768          | Potrans      | FS-06005-0M | +5V@0-12.0A               | 60.0W | 120                      | —               | —               | UL/CUL/CE     | 45.95   | 41.00   | 35.95   |
| 689821          | Potrans      | 1M051C12-1M | +12V@0-4.2A               | 50.0W | 100                      | —               | —               | UL/CUL/TUV/CE | 34.95   | 31.00   | 27.95   |
| 689813          | Potrans      | 1M061C05-0M | +12V@0-5.0A               | 60.0W | 120                      | —               | —               | UL/CUL/TUV/CE | 47.95   | 43.00   | 37.95   |

\* Primary Output

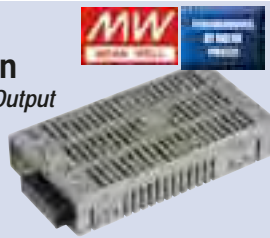
RoHS compliant product

This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

## 75-Watt Enclosed with Power Factor Correction

**SP-75 & TP-75B Series: Single & Triple Output**

- 100% full-load burn-in
- Three-year warranty
- See [www.Jameco.com](http://www.Jameco.com) for specifications



## 85-Watt Enclosed with Power Factor Correction

**RD-85, RT-85 & RQ-85 Series: Dual, Triple & Quad Output**

- 100% full-load burn-in
- Three-year warranty
- See [www.Jameco.com](http://www.Jameco.com) for specifications



## 100-Watt Enclosed

**RS-100 Series: Single Output**

- 100% full-load burn-in
- Three-year warranty
- See [www.Jameco.com](http://www.Jameco.com) for specifications



## 100-Watt Enclosed

**S-100F Series: Single Output**

- 100% full-load burn-in
- Two-year warranty
- See [www.Jameco.com](http://www.Jameco.com) for specifications



## 100-Watt Enclosed with Power Factor Correction

**SP-100 & TP-100 Series: Single & Triple Outputs**

- 100% full-load burn-in
- Three-year warranty
- See [www.Jameco.com](http://www.Jameco.com) for specifications





Open-Frame Power Supplies  
on pages 214-218.

For PC Power Supplies, see page 262.

Lower \$\$\$

| Jameco Part No. | Manufacturer | Product No. | Output   |        | Ripple & Noise (mV p-p)* | Load Reg. (%) | Line Reg. (%) | Certification    | Pricing |         |         |
|-----------------|--------------|-------------|--|--------|--------------------------|---------------|---------------|------------------|---------|---------|---------|
|                 |              |             | Voltage@Current (min-max)                        | Power  |                          |               |               |                  | 1       | 10      | 25      |
| 693370          | Mean Well    | SP-75-3.3   | +3.3V@0-15.0A                                    | 49.5W  | 80                       | 1             | 0.5           | UL/CUL/TUV/CE/CB | \$77.59 | \$73.69 | \$71.49 |
| 194830          | Mean Well    | SP-75-5     | +5V@0-15A  | 75.0W  | 80                       | 1             | 0.5           | UL/CUL/TUV/CE/CB | 59.95   | 53.96   | 48.56   |
| 693388          | Mean Well    | SP-75-7.5   | +7.5V@0-10.0A                                    | 75.0W  | 80                       | 1             | 0.5           | UL/CUL/TUV/CE/CB | 77.59   | 73.69   | 71.49   |
| 194838          | Mean Well    | SP-75-12    | +12V@0-6.3A                                      | 75.6W  | 80                       | 0.5           | 0.5           | UL/CUL/TUV/CE/CB | 69.95   | 61.05   | 53.89   |
| 693396          | Mean Well    | SP-75-13.5  | +13.5V@0-5.6A                                    | 75.6W  | 80                       | 0.5           | 0.5           | UL/CUL/TUV/CE/CB | 77.59   | 73.69   | 71.49   |
| 194846          | Mean Well    | SP-75-15    | +15V@0-5A  | 75.0W  | 80                       | 0.5           | 0.5           | UL/CUL/TUV/CE/CB | 69.95   | 61.05   | 53.89   |
| 194854          | Mean Well    | SP-75-24    | +24V@0-3.2A                                      | 76.8W  | 100                      | 0.5           | 0.5           | UL/CUL/TUV/CE/CB | 69.95   | 61.05   | 53.89   |
| 693409          | Mean Well    | SP-75-27    | +27V@0-2.8A                                      | 75.6W  | 100                      | 0.5           | 0.5           | UL/CUL/TUV/CE/CB | 77.59   | 73.69   | 71.49   |
| 216805          | Mean Well    | SP-75-48    | +48V@0-1.6A                                      | 76.8W  | 100                      | 0.5           | 0.5           | UL/CUL/TUV/CE/CB | 77.59   | 73.69   | 71.49   |
| 375049          | Mean Well    | TP-75B      | +5V@1.5-10A; +12V@0.2-4A; -12V@0-0.6A            | 75.8W  | 100                      | 3             | 1             | UL/CUL/TUV/CE/CB | 78.85   | 74.10   | 70.40   |
| 323628          | Mean Well    | RD-85A      | +5V@2-10A; +12V@0.3-5A                           | 88.0W  | 80                       | 1             | 0.5           | UL/CUL/TUV/CE/CB | 61.75   | 52.25   | 49.65   |
| 323636          | Mean Well    | RD-85B      | +5V@2-10A; +24V@0.3-2.5A                         | 88.0W  | 80                       | 1             | 0.5           | UL/CUL/TUV/CE/CB | 61.75   | 52.25   | 49.65   |
| 323644          | Mean Well    | RT-85A      | +5V@2-10A; +12V@0.3-4A; -5V@0-1A                 | 84.5W  | 80                       | 1             | 0.5           | UL/CUL/TUV/CE/CB | 66.55   | 57.05   | 54.25   |
| 323652          | Mean Well    | RT-85B      | +5V@2-10A; +12V@0.3-4A; -12V@0-1A                | 88.0W  | 80                       | 1             | 0.5           | UL/CUL/TUV/CE/CB | 66.55   | 57.05   | 54.25   |
| 323661          | Mean Well    | RT-85C      | +5V@2-10A; +15V@0.3-4A; -15V@0-1A                | 87.5W  | 80                       | 1             | 0.5           | UL/CUL/TUV/CE/CB | 66.55   | 57.05   | 54.25   |
| 323679          | Mean Well    | RT-85D      | +5V@2-10A; +12V@0.1-1A; +24V@0.3-2.5A            | 90.0W  | 80                       | 1             | 0.5           | UL/CUL/TUV/CE/CB | 66.55   | 57.05   | 54.25   |
| 323686          | Mean Well    | RQ-85B      | +5V@2-10A; +12V@0.3-4A; -5V@0-1A; -12V@0-1A      | 80.7W  | 80                       | 1             | 0.5           | UL/CUL/TUV/CE/CB | 59.99   | 56.99   | 54.15   |
| 323695          | Mean Well    | RQ-85D      | +5V@2-10A; +12V@0.3-4A; +24V@0.1-1.5A; -12V@0-1A | 84.0W  | 80                       | 1             | 0.5           | UL/CUL/TUV/CE/CB | 68.45   | 57.95   | 55.05   |
| 693273          | Mean Well    | RS-100-3.3  | +3.3V@0-20.0A                                    | 66.0W  | 80                       | 2             | 0.5           | UL/CUL/TUV/CE/CB | 62.09   | 53.35   | 48.50   |
| 323708          | Mean Well    | RS-100-5    | +5V@0-16A  | 80.0W  | 80                       | 1             | 0.5           | UL/CUL/TUV/CE/CB | 57.95   | 49.45   | 46.99   |
| 323716          | Mean Well    | RS-100-12   | +12V@0-8.5A                                      | 102.0W | 120                      | 0.5           | 0.5           | UL/CUL/TUV/CE/CB | 62.09   | 53.35   | 48.50   |
| 323723          | Mean Well    | RS-100-15   | +15V@0-7A  | 105.0W | 120                      | 0.5           | 0.5           | UL/CUL/TUV/CE/CB | 62.09   | 53.35   | 48.50   |
| 323732          | Mean Well    | RS-100-24   | +24V@0-4.5A                                      | 108.0W | 120                      | 0.5           | 0.5           | UL/CUL/TUV/CE/CB | 57.95   | 49.45   | 46.99   |
| 693290          | Mean Well    | RS-100-48   | +48V@0-2.3A                                      | 110.4W | 200                      | 0.5           | 0.5           | UL/CUL/TUV/CE/CB | 62.09   | 53.35   | 48.50   |
| 201962          | Mean Well    | S-100F-5    | +5V@0-20A  | 100.0W | 100                      | 1             | 0.5           | UL/TUV/CE/CB     | 66.95   | 56.91   | 42.68   |
| 374919          | Mean Well    | S-100F-7.5  | +7.5V@0-13.5A                                    | 101.0W | 125                      | 0.5           | 0.5           | UL/CUL/TUV/CE/CB | 66.95   | 49.90   | 44.90   |
| 123386          | Mean Well    | S-100F-12   | +12V@0-8.5A                                      | 102.0W | 125                      | 0.5           | 0.5           | UL/TUV/CE/CB     | 66.95   | 49.90   | 44.90   |
| 212451          | Mean Well    | S-100F-15   | +15V@0-6.7A                                      | 100.5W | 125                      | 0.5           | 0.5           | UL/TUV/CE/CB     | 66.95   | 49.90   | 44.90   |
| 201971          | Mean Well    | S-100F-24   | +24V@0-4.5A                                      | 108.0W | 150                      | 0.5           | 0.5           | UL/TUV/CE/CB     | 66.95   | 49.90   | 44.90   |
| 216793          | Mean Well    | S-100F-48   | +48V@0-2.2A                                      | 105.6W | 150                      | 0.5           | 0.5           | UL/TUV/CE/CB     | 66.95   | 49.90   | 44.90   |
| 693441          | Mean Well    | SP-100-3.3  | +3.3V@0-20.0A                                    | 66.0W  | 100                      | 1             | 0.5           | UL/CUL/TUV/CE/CB | 89.25   | 84.39   | 81.85   |
| 194791          | Mean Well    | SP-100-5    | +5V@0-20A  | 100.0W | 100                      | 1             | 0.5           | UL/CUL/TUV/CE/CB | 84.95   | 79.70   | 75.69   |
| 693450          | Mean Well    | SP-100-7.5  | +7.5V@0-13.5A                                    | 101.3W | 100                      | 1             | 0.5           | UL/CUL/TUV/CE/CB | 89.25   | 84.39   | 81.85   |
| 194803          | Mean Well    | SP-100-12   | +12V@0-8.5A                                      | 102.0W | 100                      | 0.5           | 0.5           | UL/CUL/TUV/CE/CB | 89.25   | 84.39   | 81.85   |
| 693476          | Mean Well    | SP-100-13.5 | +13.5V@0-7.5A                                    | 101.3W | 100                      | 0.5           | 0.5           | UL/CUL/TUV/CE/CB | 89.25   | 84.39   | 81.85   |
| 212433          | Mean Well    | SP-100-15   | +15V@0-6.7A                                      | 100.5W | 100                      | 0.5           | 0.5           | UL/CUL/TUV/CE/CB | 89.25   | 84.39   | 81.85   |
| 194812          | Mean Well    | SP-100-24   | +24V@0-4.2A                                      | 100.8W | 150                      | 0.5           | 0.5           | UL/CUL/TUV/CE/CB | 89.95   | 79.95   | 69.95   |
| 394170          | Mean Well    | SP-100-27   | +27V@0-3.8A                                      | 102.6W | 150                      | 0.5           | 0.5           | UL/CUL/TUV/CE/CB | 84.95   | 79.70   | 75.69   |
| 693484          | Mean Well    | SP-100-48   | +48V@0-2.1A                                      | 100.8W | 250                      | 0.5           | 0.5           | UL/CUL/TUV/CE/CB | 89.25   | 84.39   | 81.85   |
| 213778          | Mean Well    | TP-100C     | +5V@3-10A; +15V@0.4-3A; -15V@0-0.6A              | 104.0W | 100                      | 3             | 1             | UL/CUL/TUV/CE/CB | 118.95  | 106.95  | 96.35   |

\* Primary Output

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)



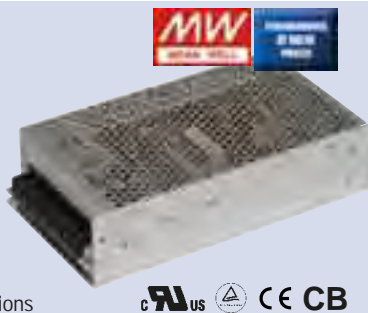
# 120 to 150-Watt Enclosed Switching AC-to-DC Power Supplies

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |

## 120-Watt Enclosed

**D-120, T-120 & Q-120 Series:**  
**Dual, Triple & Quad Outputs**

- 100% full-load burn-in
- Mating connector:  
P/N 103588, pg 162
- Working temperature: -10°C to +60°C
- Mounting hardware:  
use P/Ns 222130, 222156  
and 222172 (see web)
- Two-year warranty
- See [www.Jameco.com](http://www.Jameco.com) for specifications

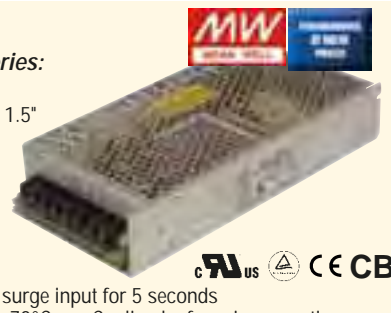


UL US CE CB

## 125-Watt Enclosed

**RD-125, RT-125 & RQ-125 Series:**  
**Dual, Triple & Quad Output**

- New smaller design: 7.8" x 3.9" x 1.5"
- 2.7 watts/in<sup>3</sup> power density
- 100% full-load burn-in
- 105°C output capacitors
- Universal AC input:  
88-264VAC @ 47-63Hz
- Short-circuit/overload/  
overvoltage protection
- Withstanding voltage of 300VAC surge input for 5 seconds
- High operating temperature up to 70°C
- Mating connector: 103588, pg 162
- See [www.Jameco.com](http://www.Jameco.com) for specifications
- Cooling by free air convection
- Three-year warranty

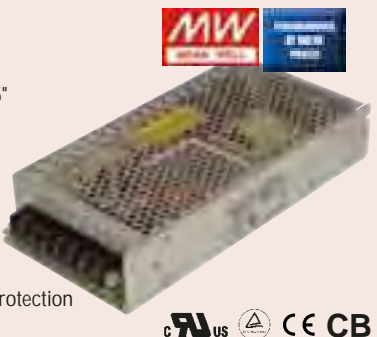


UL US CE CB

## 150-Watt Enclosed

**RS-150 Series: Single Output**

- New smaller design: 7.8" x 3.9" x 1.5"
- 3.3 watts/in<sup>3</sup> power density
- 100% full-load burn-in
- 105°C output capacitor
- Cooling by free air convection
- High operating  
temperature up to 70°C
- Universal AC input:  
88-264VAC @ 47-63Hz
- Short-circuit/overload/overvoltage protection
- Withstanding voltage of 300VAC  
surge input for 5 seconds
- Mating connector: 103588, pg 162
- Three-year warranty



UL US CE CB

## 150-Watt Enclosed

**S-150 Series: Single Output**

- 100% full-load burn-in
- No minimum load required
- Voltage adj.: 10%
- Mating connector:  
P/N 103588, pg 162
- Input: 88-132/176-264 @ 47-63Hz
- Working temperature: -10°C to +60°C
- Mounting hardware: use P/Ns 222130,  
222156 & 222172 (see web)
- Two-year warranty
- See [www.Jameco.com](http://www.Jameco.com) for specifications
































UL US CE CB

Open-Frame Power Supplies  
on pages 214-218.

For PC Power Supplies, see page 262.

Lower \$\$\$

on pages 214-218.

| Jameco<br>Part No. | Manufacturer  | Product No. | Output  |        | Ripple &<br>Noise<br>(mV p-p)* | Load<br>Reg.<br>(±%)* | Line<br>Reg.<br>(±%)* | Certification    | Pricing |         |         |
|--------------------|---|-------------|---|--------|--------------------------------|-----------------------|-----------------------|------------------|---------|---------|---------|
|                    |   |             | Voltage@Current (min-max)                         | Power  |                                |                       |                       |                  | 1       | 10      | 25      |
| 132410             | Mean Well    | D-120A      | +5V@2-12A; +12V@0.5-5A                            | 120.0W | 60                             | 0.5                   | 0.5                   | UL/CUL/TUV/CE/CB | \$69.95 | \$58.29 | \$51.69 |
| 132397             | Mean Well   | D-120B      | +5V@2-6A; +24V@0.4-4A                             | 126.0W | 60                             | 0.5                   | 0.5                   | UL/CUL/TUV/CE/CB | 69.95   | 58.29   | 51.69   |
| 301509             | Mean Well  | T-120B      | +5V@2-12A; +12V@0.5-5A; -12V@0.2-1A               | 121.0W | 80                             | 0.5                   | 0.5                   | UL/CUL/TUV/CE/CB | 74.95   | 61.04   | 53.89   |
| 301517             | Mean Well  | T-120C      | +5V@2-12A; +15V@0.5-5A; -15V@0.2-1A               | 117.5W | 80                             | 0.5                   | 0.5                   | UL/CUL/TUV/CE/CB | 74.95   | 61.04   | 53.89   |
| 132389             | Mean Well  | Q-120B      | +5V@2-11A; -5V@0.2-1A; +12V@0.5-4A; -12V@0.2-1A   | 120.0W | 80                             | 0.5                   | 0.5                   | UL/CUL/TUV/CE/CB | 79.95   | 67.96   | 50.97   |
| 132371             | Mean Well  | Q-120D      | +5V@2-8A; +24V@0.2-2A; +12V@0.2-2A; -12V@0.2-1A   | 124.0W | 80                             | 0.5                   | 0.5                   | UL/CUL/TUV/CE/CB | 79.95   | 63.79   | 56.09   |
| 323741             | Mean Well  | RD-125A     | +5V@2-15A; +12V@0.5-10A                           | 130.9W | 80                             | 3                     | 1                     | UL/CUL/TUV/CE/CB | 64.65   | 55.15   | 52.39   |
| 323759             | Mean Well  | RD-125B     | +5V@2-10A; +24V@0.4-5A                            | 133.4W | 80                             | 3                     | 1                     | UL/CUL/TUV/CE/CB | 64.65   | 55.15   | 52.39   |
| 323767             | Mean Well  | RT-125A     | +5V@2-15A; +12V@0.5-6A; -5V@0.1-1A                | 131.0W | 80                             | 1                     | 0.5                   | UL/CUL/TUV/CE/CB | 70.35   | 60.85   | 57.85   |
| 323775             | Mean Well  | RT-125B     | +5V@2-15A; +12v@0.5-6A; -12V@0.1-1A               | 132.0W | 80                             | 1                     | 0.5                   | UL/CUL/TUV/CE/CB | 70.35   | 60.85   | 57.85   |
| 323783             | Mean Well  | RT-125C     | +5V@2-15A; +15V@0.5-6A; -15V@0.1-1A               | 132.5W | 80                             | 1                     | 0.5                   | UL/CUL/TUV/CE/CB | 70.35   | 60.85   | 57.85   |
| 323792             | Mean Well  | RT-125D     | +5V@2-15A; +12V@0.1-2A; +24V@0.4-4A               | 136.0W | 80                             | 1                     | 0.5                   | UL/CUL/TUV/CE/CB | 70.35   | 60.85   | 57.85   |
| 323804             | Mean Well  | RQ-125B     | +5V@2-12A; +12V@0.5-4.5A; -5V@0.1-1A; -12V@0.1-1A | 120.0W | 80                             | 1                     | 0.5                   | UL/CUL/TUV/CE/CB | 72.25   | 62.75   | 59.65   |
| 323812             | Mean Well  | RQ-125D     | +5V@2-12A; +12V@0.5-4A; +24V@0.1-2.5A; -12V@0-1A  | 124.0W | 80                             | 1                     | 0.5                   | UL/CUL/TUV/CE/CB | 72.25   | 62.75   | 59.65   |
| 693329             | Mean Well  | RS-150-3.3  | +3.3V@0-30.0A                                     | 99.0W  | 80                             | 2                     | 0.5                   | UL/CUL/TUV/CE/CB | 65.99   | 57.23   | 53.35   |
| 323821             | Mean Well  | RS-150-5    | +5V@0-26A   | 130.0W | 80                             | 1                     | 0.5                   | UL/CUL/TUV/CE/CB | 65.99   | 57.23   | 53.35   |
| 323839             | Mean Well  | RS-150-12   | +12V@0-12.5A                                      | 150.0W | 120                            | 0.5                   | 0.5                   | UL/CUL/TUV/CE/CB | 65.99   | 57.23   | 53.35   |
| 323847             | Mean Well  | RS-150-15   | +15V@0-10A  | 150.0W | 120                            | 0.5                   | 0.5                   | UL/CUL/TUV/CE/CB | 65.99   | 57.23   | 53.35   |
| 323855             | Mean Well  | RS-150-24   | +24V@0-6.5A                                       | 156.0W | 120                            | 0.5                   | 0.5                   | UL/CUL/TUV/CE/CB | 65.99   | 57.23   | 53.35   |
| 323863             | Mean Well  | RS-150-48   | +48V@0-3.3A                                       | 158.4W | 200                            | 0.5                   | 0.5                   | UL/CUL/TUV/CE/CB | 65.99   | 57.23   | 53.35   |
| 123394             | Mean Well  | S-150-5     | +5V@0-30A   | 150.0W | 150                            | 0.5                   | 0.5                   | UL/CUL/TUV/CE/CB | 62.95   | 60.99   | 59.09   |
| 123415             | Mean Well  | S-150-7.5   | +7.5V@0-20A                                       | 150.0W | 150                            | 0.5                   | 0.5                   | UL/CUL/TUV/CE/CB | 62.95   | 60.99   | 59.09   |
| 693353             | Mean Well  | S-150-9     | +9V@0-16.7A                                       | 150.3W | 180                            | 0.3                   | 0.3                   | UL/CUL/TUV/CE/CB | 62.95   | 60.99   | 59.09   |
| 123423             | Mean Well  | S-150-12    | +12V@0-12.5A                                      | 150.0W | 180                            | 0.3                   | 0.3                   | UL/CUL/TUV/CE/CB | 64.79   | 58.30   | 52.50   |
| 202025             | Mean Well  | S-150-13.5  | +13.5V@0-11.2A                                    | 151.2W | 180                            | 0.3                   | 0.3                   | UL/CUL/TUV/CE/CB | 62.95   | 60.99   | 59.09   |
| 123432             | Mean Well  | S-150-15    | +15V@0-10A  | 150.0W | 180                            | 0.3                   | 0.3                   | UL/CUL/TUV/CE/CB | 64.79   | 58.30   | 52.50   |
| 123450             | Mean Well  | S-150-24    | +24V@0-6.5A                                       | 156.0W | 240                            | 0.2                   | 0.2                   | UL/CUL/TUV/CE/CB | 69.95   | 58.30   | 52.50   |
| 202033             | Mean Well  | S-150-27    | +27V@0-5.6A                                       | 151.2W | 240                            | 0.2                   | 0.2                   | UL/CUL/TUV/CE/CB | 62.95   | 60.99   | 59.09   |
| 167346             | Mean Well  | S-150-48    | +48V@0-3.2A                                       | 153.6W | 240                            | 0.2                   | 0.2                   | UL/CUL/TUV/CE/CB | 62.95   | 60.99   | 59.09   |

\* Primary Output

| Other Manufacturers – Special Offers at Great Savings – 90-Day Warranty |              |             |                           |        |                          |                 |                 |               |         |         | SALE    |
|---|--------------|-------------|---------------------------|--------|--------------------------|-----------------|-----------------|---------------|---------|---------|---------|
| Jameco Part No.   | Manufacturer | Product No. | Output                    |        | Ripple & Noise (mV p-p)* | Load Reg. (±%)* | Line Reg. (±%)* | Certification | Pricing |         |         |
|   |              |             | Voltage@Current (min-max) | Power  |                          |                 |                 |               | 1       | 10      | 25      |
| 323871  | Volgen       | SP100U-24S  | +24V@4.4A                 | 105.6W | 150                      | 0.4             | 0.2             | —             | \$44.95 | \$40.45 | \$38.45 |

\* Primary Output

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

## 150-Watt Enclosed with Power Factor Correction

**SP-150, TP-150 & QP-150 Series: Single, Triple & Quad Outputs**

- 100% full-load burn-in
- Input: 85-264VAC, 120-370VDC
- Mating connector: P/N 103588, pg 162
- Working temperature: -10°C to +60°C
- See [www.Jameco.com](http://www.Jameco.com) for specifications
- Three-year warranty



## 200-Watt Enclosed with Power Factor Correction

**SP-200 Series: Single Output**

- 100% full-load burn-in
- Built-in fan cooling
- Input: 85-264VAC @ 47-63Hz, 120-370VDC
- Mating connector: P/N 103588, pg 162
- Working temperature: -10°C to +60°C
- See [www.Jameco.com](http://www.Jameco.com) for specifications
- Three-year warranty



## 200-Watt Enclosed with Power Factor Correction

**QP-200 Series: Quad Output**

- 100% full-load burn-in
- Input: 85-264VAC, 120-370VDC
- 2.6 watts/in<sup>3</sup> maximum
- Built-in fan cooling
- Mating connector: P/N 103588, pg 162
- Working temperature: -10°C to +60°C
- See [www.Jameco.com](http://www.Jameco.com) for specifications
- Three-year warranty



## 240-Watt Enclosed

**S-240 Series: Single Output**




























- 100% full-load burn-in
- No minimum load required
- 3.4 watts/in<sup>3</sup> maximum
- Auto cooling fan
- Voltage adjustment: 10%
- Mating connector: P/N 103588, pg 162
- Input: 88-132/176-264VAC @ 47-63Hz
- See [www.Jameco.com](http://www.Jameco.com) for specifications
- Two-year warranty



Open-Frame Power Supplies on pages 214-218.

For PC Power Supplies, see page 262.

| Jameco Part No. | Manufacturer  | Product No. | Output   |        | Ripple & Noise (mV p-p)* | Load Reg. (%)* | Line Reg. (%)* | Certification    | Pricing |         |         |
|-----------------|---|-------------|--|--------|--------------------------|----------------|----------------|------------------|---------|---------|---------|
|                 |   |             | Voltage@Current (min-max)                      | Power  |                          |                |                |                  | 1       | 10      | 25      |
| 201903          | Mean Well    | SP-150-3.3  | +3.3V@0-30A                                    | 99.0W  | 100                      | 1              | 0.5            | UL/CUL/TUV/CE/CB | \$82.75 | \$70.34 | \$52.75 |
| 201911          | Mean Well    | SP-150-5    | +5V@0-30A                                      | 150.0W | 100                      | 1              | 0.5            | UL/CUL/TUV/CE/CB | 99.89   | 89.90   | 67.43   |
| 693505          | Mean Well   | SP-150-7.5  | +7.5V@0-20.0A                                  | 150.0W | 100                      | 1              | 0.5            | UL/CUL/TUV/CE/CB | 99.89   | 95.07   | 92.19   |
| 173421          | Mean Well  | SP-150-12   | +12V@0-12.5A                                   | 150.0W | 100                      | 0.5            | 0.5            | UL/CUL/TUV/CE/CB | 99.89   | 95.07   | 92.19   |
| 394193          | Mean Well  | SP-150-13.5 | +13.5V@0-11.2A                                 | 151.2W | 100                      | 0.5            | 0.5            | UL/CUL/TUV/CE/CB | 99.89   | 95.07   | 92.19   |
| 173412          | Mean Well  | SP-150-15   | +15V@0-10A                                     | 150.0W | 100                      | 0.5            | 0.5            | UL/CUL/TUV/CE/CB | 94.95   | 91.21   | 85.70   |
| 173404          | Mean Well  | SP-150-24   | +24V@0-6.3A                                    | 150.0W | 150                      | 0.5            | 0.5            | UL/CUL/TUV/CE/CB | 94.95   | 90.21   | 85.70   |
| 693513          | Mean Well  | SP-150-27   | +27V@0-5.6A                                    | 151.2W | 150                      | 0.5            | 0.5            | UL/CUL/TUV/CE/CB | 99.89   | 95.07   | 92.19   |
| 201930          | Mean Well  | SP-150-48   | +48V@0-3.2A                                    | 153.6W | 250                      | 0.5            | 0.5            | UL/CUL/TUV/CE/CB | 99.89   | 95.07   | 92.19   |
| 213832          | Mean Well  | TP-150C     | +5V@2-15A; +15V@0.4-4.5A; -15V@0-0.6A          | 151.5W | 100                      | 3              | 1              | UL/CUL/TUV/CE/CB | 93.25   | 83.89   | 75.50   |
| 213648          | Mean Well  | QP-150F     | +5V@3-10A; +15V@0-3A; +24V@0.4-2A; -15V@0-0.6A | 152.0W | 120                      | 2              | 1              | UL/CUL/TUV/CE/CB | 145.95  | 124.06  | 93.04   |
| 693521          | Mean Well  | SP-200-3.3  | +3.3V@0-40.0A                                  | 132.0W | 100                      | 1              | 0.5            | UL/CUL/TUV/CE/CB | 112.49  | 105.73  | 102.55  |
| 202042          | Mean Well  | SP-200-5    | +5V@0-40A                                      | 200.0W | 100                      | 1              | 0.5            | UL/CUL/TUV/CE/CB | 102.95  | 85.79   | 74.79   |
| 693530          | Mean Well  | SP-200-7.5  | +7.5V@0-26.7A                                  | 202.2W | 100                      | 1              | 0.5            | UL/CUL/TUV/CE/CB | 112.49  | 105.73  | 102.55  |
| 194774          | Mean Well  | SP-200-12   | +12V@0-16.7A                                   | 200.4W | 100                      | 0.5            | 0.5            | UL/CUL/TUV/CE/CB | 112.49  | 105.73  | 102.55  |
| 212410          | Mean Well  | SP-200-13.5 | +13.5V@0-14.9A                                 | 201.1W | 100                      | 0.5            | 0.5            | UL/CUL/TUV/CE/CB | 112.49  | 105.73  | 102.55  |
| 202060          | Mean Well  | SP-200-15   | +15V@0-13.4A                                   | 201.0W | 100                      | 0.5            | 0.5            | UL/CUL/TUV/CE/CB | 112.49  | 105.73  | 102.55  |
| 194782          | Mean Well  | SP-200-24   | +24V@0-8.4A                                    | 201.6W | 150                      | 0.5            | 0.5            | UL/CUL/TUV/CE/CB | 102.95  | 92.66   | 83.39   |
| 693548          | Mean Well  | SP-200-27   | +27V@0-7.5A                                    | 202.5W | 150                      | 0.5            | 0.5            | UL/CUL/TUV/CE/CB | 112.49  | 105.73  | 102.55  |
| 202068          | Mean Well  | SP-200-48   | +48V@0-4.2A                                    | 201.6W | 250                      | 0.5            | 0.5            | UL/CUL/TUV/CE/CB | 102.95  | 92.66   | 83.39   |
| 213752          | Mean Well  | QP-200D     | +5V@3-15A; +12V@0-4A; +24V@0.4-3A; -12V@0-0.7A | 204.9W | 100                      | 2              | 1              | UL/CUL/TUV/CE/CB | 156.95  | 127.99  | 112.99  |
| 693556          | Mean Well  | S-240-7.5   | +7.5V@0-30.0A                                  | 225.0W | 200                      | 1              | 0.5            | UL/CUL/TUV/CE/CB | 105.75  | 99.99   | 96.99   |
| 137649          | Mean Well  | S-240-12    | +12V@0-18A                                     | 216.0W | 150                      | 0.5            | 0.5            | UL/CUL/TUV/CE/CB | 109.95  | 98.95   | 89.09   |
| 202075          | Mean Well  | S-240-15    | +15V@0-15A                                     | 225.0W | 150                      | 0.5            | 0.5            | UL/CUL/TUV/CE/CB | 105.75  | 99.99   | 96.99   |
| 137657          | Mean Well  | S-240-24    | +24V@0-10A                                     | 240.0W | 180                      | 0.5            | 0.5            | UL/CUL/TUV/CE/CB | 105.75  | 99.99   | 96.99   |
| 392834          | Mean Well  | S-240-30    | +30V@0-8A                                      | 240.0W | 180                      | 0.5            | 0.5            | UL/CUL/TUV/CE/CB | 99.95   | 93.95   | 89.25   |
| 167338          | Mean Well  | S-240-48    | +48V@0-5A                                      | 240.0W | 240                      | 1              | 1              | UL/CUL/TUV/CE/CB | 105.75  | 99.99   | 96.99   |



\* Primary Output

Call for special versions and large quantities

## Other Manufacturers – Special Offers at Great Savings – 90-Day Warranty

| Jameco Part No. | Manufacturer | Product No.  | Output                    |        | Ripple & Noise (mV p-p)* | Load Reg. (%)* | Line Reg. (%)* | Certification | Pricing |         |         |
|-----------------|--------------|--------------|---------------------------|--------|--------------------------|----------------|----------------|---------------|---------|---------|---------|
|                 |              |              | Voltage@Current (min-max) | Power  |                          |                |                |               | 1       | 10      | 25      |
| 199515          | Globtek      | RT-3S150-24  | 24V@6.5A                  | 156.0W | 100                      | 5              | 5              | UL/CE         | \$64.15 | \$57.75 | \$43.15 |
| 371012          | Potrans      | GL150W-24-NC | 24V@6.5A                  | 156.0W | 150                      | —              | —              | UL/CUL/TUV/CE | 49.95   | 42.46   | 31.84   |
| 689750          | Potrans      | FS-20024-1M  | 24V@0-8.3A                | 200.0W | 150                      | —              | —              | UL/CUL/CE     | 89.95   | 79.95   | 69.95   |

\* Primary Output

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

# 300 to 480-Watt Enclosed Switching AC-to-DC Power Supplies

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |

## 300-Watt Enclosed with Power Factor Correction

### PSP-300 Series: Single Output

- 100% full-load burn-in
- Three-year warranty
- See [www.Jameco.com](http://www.Jameco.com) for specifications

CE CB



## 320-Watt Enclosed

### S-320 Series: Single Output

- 100% full-load burn-in
- Two-year warranty
- See [www.Jameco.com](http://www.Jameco.com) for specifications

CE CB



## 300 & 320-Watt Enclosed with Power Factor Correction

- 100% full-load burn-in • Universal AC input
- No minimum load required
- Auto cooling fan • Voltage adj.: 10%
- Three-year warranty

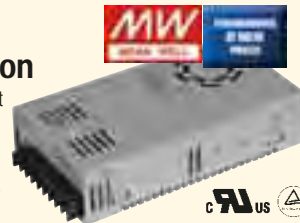
### SP-300 & SP-320 Series: Single Output

- Input: 88-264VAC @ 47-63Hz, 120-370VDC
- Working temperature: SP-300: -10°C to +60°C; SP-320: -20°C to 65°C

### QP-320 Series: Quad Output

- Input: 90-264VAC @ 47-63Hz • Working temperature: -10°C to +70°C

CE CB

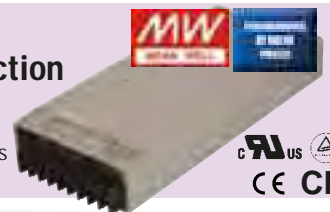


## 480-Watt Enclosed with Power Factor Correction

### SP-480 Series: Single Output

- Three-year warranty
- See [www.Jameco.com](http://www.Jameco.com) for specifications

CE CB



Open-Frame Power Supplies on pages 214-218.

For PC Power Supplies, see page 262.

Lower \$\$\$

| Jameco Part No. | Manufacturer | Product No. | Output  |        | Ripple & Noise (mV p-p)* | Load Reg. (±%)* | Line Reg. (±%)* | Certification    | Pricing  |          |          |
|-----------------|--------------|-------------|---|--------|--------------------------|-----------------|-----------------|------------------|----------|----------|----------|
|                 |              |             | Voltage@Current (min-max)                           | Power  |                          |                 |                 |                  | 1        | 10       | 25       |
| 374169          | Mean Well    | PSP-300-12  | +12V@0-25A  | 300.0W | 200                      | 0.5             | 0.3             | UL/CUL/TUV/CE/CB | \$178.65 | \$169.10 | \$160.65 |
| 374185          | Mean Well    | PSP-300-24  | +24V@0-12.5A  | 300.0W | 200                      | 0.5             | 0.2             | UL/CUL/TUV/CE/CB | 178.65   | 169.10   | 160.65   |
| 374193          | Mean Well    | PSP-300-27  | +27V@0-11A  | 297.0W | 200                      | 0.5             | 0.2             | UL/CUL/TUV/CE/CB | 178.65   | 169.10   | 160.65   |
| 202091          | Mean Well    | SP-300-5    | +5V@0-50A at 230VAC; 0-40A at 115VAC                | 250.0W | 150                      | 1               | 0.5             | UL/CUL/TUV/CE/CB | 169.95   | 144.46   | 108.34   |
| 212396          | Mean Well    | SP-300-13.5 | +13.5V@0-21A at 230VAC; 0-16.8A at 115VAC           | 285.0W | 150                      | 0.5             | 0.3             | UL/CUL/TUV/CE/CB | 181.95   | 159.70   | 143.80   |
| 202104          | Mean Well    | SP-300-15   | +15V@0-19A at 230VAC; 0-15.2A at 115VAC             | 285.0W | 150                      | 0.5             | 0.3             | UL/CUL/TUV/CE/CB | 181.95   | 163.76   | 122.82   |
| 161980          | Mean Well    | SP-300-48   | +48V@0-6.25A at 230VAC; 0-5A at 115VAC              | 300.0W | 240                      | 0.5             | 0.2             | UL/CUL/TUV/CE/CB | 181.95   | 154.66   | 115.99   |
| 244734          | Mean Well    | SP-320-5    | +5V@0-55A at 230VAC; 0-44A at 115VAC                | 275.0W | 150                      | 1               | 0.5             | UL/CUL/TUV/CE/CB | 151.35   | 130.95   | 121.25   |
| 394215          | Mean Well    | SP-320-7.5  | +7.5V@0-40A   | 300.0W | 150                      | 1               | 0.5             | UL/CUL/TUV/CE/CB | 151.35   | 130.95   | 121.25   |
| 244743          | Mean Well    | SP-320-12   | +12V@0-25A at 230VAC; 0-20A at 115VAC               | 300.0W | 150                      | 0.5             | 0.3             | UL/CUL/TUV/CE/CB | 146.95   | 126.95   | 118.95   |
| 693599          | Mean Well    | SP-320-13.5 | +13.5V@0-22.0A                                      | 297.0W | 150                      | 0.5             | 0.3             | UL/CUL/TUV/CE/CB | 151.35   | 130.95   | 121.25   |
| 693610          | Mean Well    | SP-320-15   | +15V@0-20.0A  | 300.0W | 150                      | 0.5             | 0.3             | UL/CUL/TUV/CE/CB | 151.29   | 130.95   | 121.25   |
| 244752          | Mean Well    | SP-320-24   | +24V@0-13A at 230VAC; 0-10.4A at 115VAC             | 312.0W | 150                      | 0.5             | 0.2             | UL/CUL/TUV/CE/CB | 151.35   | 130.95   | 121.25   |
| 693628          | Mean Well    | SP-320-27   | +27V@0-11.7A  | 315.9W | 200                      | 0.5             | 0.2             | UL/CUL/TUV/CE/CB | 151.35   | 130.95   | 121.25   |
| 244770          | Mean Well    | SP-320-48   | +48V@0-6.7A at 230VAC; 0-5.4A at 115VAC             | 321.6W | 240                      | 0.5             | 0.2             | UL/CUL/TUV/CE/CB | 151.35   | 130.95   | 121.25   |
| 216776          | Mean Well    | S-320-5     | +5V@0-50A   | 250.0W | 150                      | 1               | 0.5             | UL/CUL           | 120.59   | 116.97   | 113.47   |
| 207212          | Mean Well    | S-320-7.5   | +7.5V@0-36A   | 270.0W | 150                      | 0.5             | 0.5             | UL/CUL           | 120.59   | 102.50   | 76.88    |
| 207204          | Mean Well    | S-320-12    | +12V@0-25A  | 300.0W | 150                      | 0.5             | 0.5             | UL/CUL           | 120.59   | 116.97   | 113.47   |
| 693572          | Mean Well    | S-320-13.5  | +13.5V@0-22.0A                                      | 297.0W | 150                      | 0.5             | 0.5             | UL/CUL           | 120.59   | 116.97   | 113.47   |
| 374993          | Mean Well    | S-320-15    | +15V@0-20A  | 300.0W | 150                      | 0.5             | 0.5             | UL/CUL           | 120.59   | 116.97   | 113.47   |
| 196657          | Mean Well    | S-320-24    | +24V@0-12.5A  | 300.0W | 150                      | 0.5             | 0.5             | UL/CUL           | 124.95   | 112.80   | 101.50   |
| 693581          | Mean Well    | S-320-27    | +27V@0-11.0A  | 297.0W | 200                      | 0.5             | 0.5             | UL/CUL           | 120.59   | 116.97   | 113.47   |
| 207191          | Mean Well    | S-320-48    | +48V@0-6.5A   | 312.0W | 240                      | 0.5             | 0.5             | UL/CUL           | 120.59   | 116.97   | 113.47   |
| 693636          | Mean Well    | SP-480-3.3  | +3.3V@0-85.0A                                       | 280.5W | 80                       | 1               | 0.5             | UL/CUL/TUV/CE/CB | 243.49   | 212.43   | 192.06   |
| 693644          | Mean Well    | SP-480-5    | +5V@0-85.0A   | 425.0W | 80                       | 1               | 0.5             | UL/CUL/TUV/CE/CB | 243.49   | 212.43   | 192.06   |
| 301373          | Mean Well    | SP-480-12   | +12V@0-40A at 230VAC; 0-36A at 115VAC               | 480.0W | 120                      | 0.5             | 0.3             | UL/CUL/TUV/CE/CB | 243.49   | 212.43   | 192.06   |
| 693652          | Mean Well    | SP-480-15   | +15V@0-35.0A  | 480.0W | 150                      | 0.5             | 0.3             | UL/CUL/TUV/CE/CB | 243.49   | 212.43   | 192.06   |
| 301322          | Mean Well    | SP-480-24   | +24V@0-20A at 230VAC; 0-18A at 115VAC               | 480.0W | 150                      | 0.5             | 0.2             | UL/CUL/TUV/CE/CB | 293.95   | 253.68   | 228.33   |
| 301402          | Mean Well    | SP-480-48   | +48V@0-10A at 230VAC; 0-9A at 115VAC                | 480.0W | 240                      | 0.5             | 0.2             | UL/CUL/TUV/CE/CB | 243.49   | 212.43   | 206.07   |
| 668764          | Mean Well    | QP-320D     | +5V@2.5-20A; +12V@0-10A; +24V@0.2-5A; -12V@0.2-2A   | 316.0W | 100                      | 2.0             | 1.0             | UL/CUL/TUV/CE/CB | 164.85   | 155.15   | 146.55   |
| 668772          | Mean Well    | QP-320F     | +5V@2.5-20A; +15V@0-10A; +24V@0.2-5A; -15V@0.2-1.6A | 316.0W | 100                      | 2.0             | 1.0             | UL/CUL/TUV/CE/CB | 164.85   | 155.15   | 146.55   |

\* Primary Output

Blue Part No. = Limited Quantity Available

## Other Manufacturers – Special Offers at Great Savings – 90-Day Warranty

| Jameco Part No. | Manufacturer | Product No. | Output                    |        | Ripple & Noise (mV p-p)* | Load Reg. (±%)* | Line Reg. (±%)* | Certification | Pricing  |          |         |
|-----------------|--------------|-------------|---------------------------|--------|--------------------------|-----------------|-----------------|---------------|----------|----------|---------|
|                 |              |             | Voltage@Current (min-max) | Power  |                          |                 |                 |               | 1        | 10       | 25      |
| 689776          | Potrans      | 1M321C48-0M | 48@0-6.5A                 | 312.0W | 240                      | —               | —               | UL/CUL        | \$119.95 | \$107.95 | \$96.95 |

\* Primary Output

Have you found a product at a lower print-advertised price? We'll beat that price by 10%, right down to our cost!

RoHS compliant product

This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



## 500-Watt Enclosed with Power Factor Correction

### SP-500 Series: Single Output

- 100% full-load burn-in
- Input: 88-264VAC, 120-370VDC
- 3.6 watts/in<sup>3</sup> maximum • Remote control
- Auto cooling fan • Voltage adjustment: 10%
- Input: 100-240VAC @ 50-60Hz
- Mating connector: P/N 103588 pg 162
- Working temperature: -10°C to +60°C
- See [www.Jameco.com](http://www.Jameco.com) for specifications
- Three-year warranty

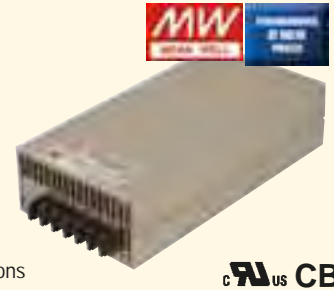


UL US CB

## 600-Watt Enclosed

### SE-600 Series: Single Output

- AC input range switch selectable
- AC input active surge current limiting
- Inrush current: 30A @ 115VAC
- Leakage current: <2mA @ 240VAC
- Short circuit/overload/over-voltage/over-temperature protection
- Working temperature: -20°C to +60°C
- Size: 9.7"L x 5.0"W x 2.5"H
- See [www.Jameco.com](http://www.Jameco.com) for specifications
- Two-year warranty



UL US CB

## 600-Watt Enclosed with Power Factor Correction

### PSP-600 Series: Single Output

- Built-in active PFC function
- Forced air cooling by built-in DC fan
- Built-in remote ON-OFF control, and remote sense function
- Current sharing up to 2400W (3 +1)
- Short circuit/overload/over-voltage/over-temperature protection
- Input: 88-264VAC @ 47-64Hz/124-370VDC
- Mating connector: P/N 103588 or 302877, pg 159
- Working temperature: -20°C to +50°C
- See [www.Jameco.com](http://www.Jameco.com) for specifications
- Three-year warranty



UL US CB

## 600-Watt Enclosed with Current Sharing

### SCN-600 Series: Single Output

- 100% full-load burn-in
- Auto cooling fan
- Voltage adjustment: 5%
- 3.7 watts/in<sup>3</sup> maximum
- Universal AC input: 90-130/180-260VAC @ 47-63Hz
- Mating connector: P/N 103588, pg 162
- Working temperature: -10°C to +65°C; (+50°C to -65°C @ 50% load)
- Mounting hardware: use P/Ns 222156 & 222172
- See [www.Jameco.com](http://www.Jameco.com) for specifications
- Two-year warranty



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## 600-Watt Enclosed with Power Factor Correction

### SCP-600 Series: Single Output

- Input: 180-260VAC @ 47-63Hz/260-370VDC
- Short circuit/overload/over-voltage/over-temperature protection
- Adjustable from 20% to 100% output voltage by external control 1V to 5V
- Built-in remote sense function, and remote ON-OFF function
- Mating connector: P/N 103588 or 302877, pg 159
- Working temperature: -20°C to +65°C
- See [www.Jameco.com](http://www.Jameco.com) for specifications
- PFC: >0.98 @ 230VAC
- Power good signal
- With parallel function (N +1)
- Forced air cooling by built-in DC fan
- Three-year warranty



UL US CB

Open-Frame Power Supplies on pages 214-218.

For PC Power Supplies, see page 262.

| Jameco Part No. | Manufacturer | Product No. | Output                                    |        | Ripple & Noise (mV p-p)* | Load Reg. (±%)* | Line Reg. (±%)* | Certification    | Pricing  |          |          |
|-----------------|--------------|-------------|---|--------|--------------------------|-----------------|-----------------|------------------|----------|----------|----------|
|                 |              |             | Voltage@Current (min-max)                 | Power  |                          |                 |                 |                  | 1        | 10       | 25       |
| 190693          | Mean Well    | SP-500-12   | +12V@0-40A at 230VAC; 0-34A at 115VAC     | 480.0W | 240                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | \$249.95 | \$216.10 | \$194.50 |
| 212389          | Mean Well    | SP-500-13.5 | +13.5V@0-36A at 230VAC; 0-30.6A at 115VAC | 486.0W | 240                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 249.95   | 212.46   | 159.34   |
| 213605          | Mean Well    | SP-500-15   | +15V@0-32A at 230VAC; 0-27.2A at 115VAC   | 480.0W | 240                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 239.95   | 203.96   | 152.97   |
| 147054          | Mean Well    | SP-500-24   | +24V@0-20A at 230VAC; 0-17A at 115VAC     | 480.0W | 240                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 249.95   | 216.10   | 194.50   |
| 190706          | Mean Well    | SP-500-27   | +27V@0-18A at 230VAC; 0-15.3A at 115VAC   | 486.0W | 200                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 249.95   | 212.46   | 159.34   |
| 161796          | Mean Well    | SP-500-48   | +48V@0-10A at 230VAC; 0-8.5A at 115VAC    | 480.0W | 300                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 249.95   | 216.10   | 194.50   |
| 374002          | Mean Well    | SE-600-05   | +5V@0-100A                                | 500.0W | 150                      | 2               | 0.5             | UL/CUL           | 173.95   | 156.59   | 140.89   |
| 291522          | Mean Well    | SE-600-15   | +15V@0-40A                                | 600.0W | 150                      | 0.5             | 0.5             | UL/CUL/CB        | 173.95   | 156.59   | 140.89   |
| 295902          | Mean Well    | SE-600-24   | +24V@0-25A                                | 600.0W | 150                      | 0.5             | 0.5             | UL/CUL/CB        | 173.95   | 156.59   | 140.89   |
| 295911          | Mean Well    | SE-600-27   | +27V@0-22.2A                              | 599.4W | 150                      | 0.5             | 0.5             | UL/CUL/CB        | 173.95   | 156.59   | 140.89   |
| 295929          | Mean Well    | SE-600-48   | +48V@0-12.5A                              | 600.0W | 200                      | 0.5             | 0.5             | UL/CUL/CB        | 173.95   | 156.59   | 140.89   |
| 374214          | Mean Well    | PSP-600-12  | +12V@0-50A                                | 600.0W | 240                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 199.99   | 191.19   | 181.65   |
| 374221          | Mean Well    | PSP-600-15  | +15V@0-40A                                | 600.0W | 240                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 219.99   | 209.99   | 199.99   |
| 374231          | Mean Well    | PSP-600-24  | +24V@0-25A                                | 600.0W | 240                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 199.99   | 191.19   | 181.65   |
| 374257          | Mean Well    | PSP-600-27  | +27V@0-22.2A                              | 600.0W | 240                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 199.99   | 191.19   | 181.65   |
| 374249          | Mean Well    | PSP-600-48  | +48V@0-12.5A                              | 600.0W | 240                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 199.99   | 191.19   | 181.65   |
| 220249          | Mean Well    | SCN-600-05  | +5V@0-100A                                | 500.0W | 100                      | 2               | 0.5             | UL/CUL/CB        | 273.95   | 213.99   | 197.99   |
| 220257          | Mean Well    | SCN-600-12  | +12V@0-50A                                | 600.0W | 120                      | 1               | 0.5             | UL/CUL/CB        | 273.95   | 213.99   | 197.99   |
| 374045          | Mean Well    | SCN-600-15  | +15V@0-40A                                | 600.0W | 150                      | 0.5             | 0.5             | UL/CUL/CB        | 273.95   | 232.86   | 174.64   |
| 220265          | Mean Well    | SCN-600-24  | +24V@0-25A                                | 600.0W | 240                      | 1               | 0.5             | UL/CUL/CB        | 273.95   | 213.99   | 197.99   |
| 374062          | Mean Well    | SCN-600-48  | +48V@0-12A                                | 600.0W | 480                      | 0.5             | 0.5             | UL/CUL/CB        | 273.95   | 213.99   | 197.99   |
| 388631          | Mean Well    | SCP-600-12  | +12V@0-50A                                | 600.0W | 120                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 356.25   | 302.81   | 227.11   |
| 388640          | Mean Well    | SCP-600-15  | +15V@0-40A                                | 600.0W | 140                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 356.25   | 308.75   | 293.31   |
| 374264          | Mean Well    | SCP-600-24  | +24V@0-25A                                | 600.0W | 240                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 356.25   | 308.75   | 293.31   |
| 374301          | Mean Well    | SCP-600-48  | +48V@0-12A                                | 576.0W | 480                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 356.25   | 308.75   | 293.31   |

\* Primary Output

Blue Part No. = Limited Quantity Available

RoHS compliant product

This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |

# 500 to 1500-Watt Enclosed Switching AC-to-DC Power Supplies

Color Code Legend  
New Sale Lower\$ QtySave

## 500, 1000 & 1500-Watt Enclosed with Power Factor Correction & Current Sharing

### PSP-500, PSP-1000 & PSP-1500 Series: Single Output

- 100% full-load burn-in
- Voltage adj.: 10%
- No minimum load required
- 3.6 watts/in<sup>2</sup> maximum
- Auto cooling fan
- Remote sense and control
- Mating connector: P/N 103588, pg 162
- Working temperature: -10°C to +60°C
- Three-year warranty
- See [www.Jameco.com](http://www.Jameco.com) for specifications

#### PSP-500 and PSP-1000:

- Parallel operation (current sharing)
- Universal AC input: 90-264VAC @ 47-63Hz, 127-370VDC

- PSP-1500: • Universal AC input: 176-264VAC @ 47-63Hz, 248-370VDC



PSP-500  
UL US CE CB

## 750-Watt Enclosed with Power Factor Correction

### SP-750 Series: Single Output

- 100% full-load burn-in
- Universal AC input: 88-264VAC @ 47-63Hz, 127-370VDC
- Withstanding voltage of 300VAC surge input for 5 seconds
- Short circuit/overload/over-volt protection
- High operating temperature up to 70°C
- Cooling by built-in fan
- Built-in active PFC function, PF>0.95
- Built-in constant current limiting circuit
- Built-in remote ON-OFF control
- Built-in remote sense function



UL US CE CB

- Mating connector: 103588, pg 162
- High power density: 5.48W/in<sup>2</sup>
- Power-good and fail-signal outputs
- Three-year warranty

## 800-Watt Enclosed with Power Factor Correction

### SCP-800 Series: Single Output

- Input: 180-260VAC @ 47-63Hz/ 260-370VDC
- PFC: >0.98 @ 230VAC
- Short circuit/overload/over-voltage/ over-temperature protection
- Forced air cooling by built-in DC fan
- Built-in remote sense function, and remote ON-OFF function
- Power good signal
- With parallel function (N + 1)
- Adjustable from 20% to 100% output voltage by external control 1V to 5V
- Mating connector: P/N 103588 or 302877, pg 159
- Working temperature: -20°C to +65°C
- Three-year warranty
- See [www.Jameco.com](http://www.Jameco.com) for specifications



UL US CE CB

## 1500-Watt Enclosed with Power Factor Correction & Parallel Current Sharing

### RSP-1500 Series: Single Output

- Universal AC input/full range
- ZVS new technology
- Short circuit/overload/over-voltage/ over-temperature protection
- Forced air cooling by built-in fan
- Current sharing up to 6000W (3 + 1)
- Built-in remote sense, ON-OFF control, and 12V/1A auxiliary output for remote control
- Working temperature: -20°C to +70°C
- Size: 10.9"L x 5.0"W x 3.3"H
- 8.3W / inch<sup>3</sup>
- Three year warranty



UL US CE CB

Open-Frame Power Supplies  
on pages 214-218.

For PC Power Supplies, see page 262.

Lower \$\$\$

| Jameco Part No. | Manufacturer | Product No.   | Output                                    |         | Ripple & Noise (mV p-p)* | Load Reg. (±%)* | Line Reg. (±%)* | Certification    | Pricing  |          |          |
|-----------------|--------------|---------------|---|---------|--------------------------|-----------------|-----------------|------------------|----------|----------|----------|
|                 |              |               | Voltage@Current (min-max)                 | Power   |                          |                 |                 |                  | 1        | 10       | 25       |
| 190714          | Mean Well    | PSP-500-12    | +12V@0-41.5A at 230VAC; 0-33.2A at 115VAC | 498.0W  | 150                      | 0.5             | 0.3             | UL/CUL/TUV/CE/CB | \$269.95 | \$232.09 | \$216.69 |
| 190722          | Mean Well    | PSP-500-24    | +24V@0-20.8A at 230VAC; 0-16.6A at 115VAC | 499.2W  | 150                      | 0.5             | 0.2             | UL/CUL/TUV/CE/CB | 269.95   | 242.96   | 218.66   |
| 190731          | Mean Well    | PSP-500-27    | +27V@0-18.5A at 230VAC; 0-14.8A at 115VAC | 499.5W  | 150                      | 0.5             | 0.2             | UL/CUL/TUV/CE/CB | 269.95   | 229.46   | 172.09   |
| 190749          | Mean Well    | PSP-500-48    | +48V@0-10.5A at 230VAC; 0-8.4A at 115VAC  | 504.0W  | 200                      | 0.5             | 0.2             | UL/CUL/TUV/CE/CB | 269.95   | 229.46   | 172.09   |
| 374029          | Mean Well    | SP-750-15     | +15V@0-50A                                | 750.0W  | 120                      | 0.5             | 0.3             | UL/CUL/TUV/CE/CB | 447.19   | 380.11   | 285.08   |
| 320048          | Mean Well    | SP-750-24     | +24V@0-31.3A                              | 750.0W  | 120                      | 0.5             | 0.2             | UL/CUL/TUV/CE/CB | 399.95   | 359.95   | 323.95   |
| 374038          | Mean Well    | SP-750-27     | +27V@0-27.8A                              | 750.0W  | 120                      | 0.5             | 0.2             | UL/CUL/TUV/CE/CB | 399.95   | 359.95   | 323.95   |
| 320056          | Mean Well    | SP-750-48     | +48V@0-15.7A                              | 750.0W  | 120                      | 0.5             | 0.2             | UL/CUL/TUV/CE/CB | 399.95   | 359.95   | 323.95   |
| 388615          | Mean Well    | SCP-800-12    | +12V@0-66A                                | 792.0W  | 120                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 441.75   | 403.75   | 383.56   |
| 388623          | Mean Well    | SCP-800-15    | +15V@0-53A                                | 795.0W  | 150                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 441.75   | 403.75   | 383.56   |
| 374310          | Mean Well    | SCP-800-24    | +24V@0-33A                                | 792.0W  | 240                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 441.75   | 375.49   | 281.62   |
| 374337          | Mean Well    | SCP-800-48    | +48V@0-16A                                | 768.0W  | 480                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 441.75   | 403.75   | 383.56   |
| 217366          | Mean Well    | PSP-1000-12   | +12V@0-75A at 230VAC; 0-63.8A at 115VAC   | 900.0W  | 150                      | 0.5             | 0.3             | UL/CUL/TUV/CE/CB | 523.95   | 445.36   | 334.02   |
| 217358          | Mean Well    | PSP-1000-24   | +24V@0-37.6A at 230VAC; 0-32A at 115VAC   | 902.4W  | 150                      | 0.5             | 0.2             | UL/CUL/TUV/CE/CB | 523.95   | 445.36   | 334.02   |
| 231652          | Mean Well    | PSP-1000-27   | +27V@0-33.6A at 230VAC; 0-28.6A at 115VAC | 907.2W  | 150                      | 0.5             | 0.2             | UL/CUL/TUV/CE/CB | 523.95   | 445.36   | 334.02   |
| 217350          | Mean Well    | PSP-1000-48   | +48V@0-19A at 230VAC; 0-16.2A at 115VAC   | 912.0W  | 200                      | 0.5             | 0.2             | UL/CUL/TUV/CE/CB | 523.95   | 442.19   | 402.59   |
| 373261          | Mean Well    | PSP-1500-12   | +12V@0-112.5A                             | 1350.0W | 150                      | 0.5             | 0.3             | UL/CUL/TUV/CE/CB | 747.65   | 663.25   | 619.25   |
| 231685          | Mean Well    | PSP-1500-13.5 | +13.5V@0-100.5A                           | 1356.7W | 150                      | 0.5             | 0.3             | UL/CUL/TUV/CE/CB | 479.99   | 436.42   | 396.74   |
| 373923          | Mean Well    | PSP-1500-24   | +24V@0-56.4A                              | 1353.6W | 150                      | 0.5             | 0.2             | UL/CUL/TUV/CE/CB | 747.65   | 635.50   | 476.63   |
| 231714          | Mean Well    | PSP-1500-27   | +27V@0-50.4A                              | 1360.8W | 150                      | 0.5             | 0.2             | UL/CUL/TUV/CE/CB | 786.95   | 663.25   | 619.25   |
| 231723          | Mean Well    | PSP-1500-48   | +48V@0-28.5A                              | 1368.0W | 200                      | 0.5             | 0.2             | UL/CUL/TUV/CE/CB | 786.95   | 663.25   | 619.25   |
| 694903          | Mean Well    | RSP-1500-5    | +5V@0-240A                                | 1200W   | 150                      | 2               | 0.5             | UL/CUL/TUV/CE/CB | 782.79   | 752.73   | 680.94   |
| 694911          | Mean Well    | RSP-1500-12   | +12V@0-125A                               | 1500W   | 150                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 782.79   | 752.73   | 680.94   |
| 694920          | Mean Well    | RSP-1500-15   | +15V@0-10A                                | 1500W   | 150                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 782.79   | 752.73   | 680.94   |
| 694938          | Mean Well    | RSP-1500-24   | +24V@0-63A                                | 1512W   | 150                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 782.79   | 752.73   | 680.94   |
| 694946          | Mean Well    | RSP-1500-27   | +27V@0-56A                                | 1512W   | 150                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 782.79   | 752.73   | 680.94   |
| 694954          | Mean Well    | RSP-1500-48   | +48V@0-32A                                | 1536W   | 200                      | 0.5             | 0.5             | UL/CUL/TUV/CE/CB | 782.79   | 752.73   | 680.94   |

\* Primary Output

Free Technical Support

Our knowledgeable Tech Support department is ready to answer your questions.  
Just call us! 1-800-831-4242

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

## Custom-Configured Mean Well Power Supplies!

### Specific Configurations for All of Your Power Needs!

Looking for a supply with unique voltage or current requirements? How about more than four outputs? Now Jameco offers Mean Well's Modular power supplies, custom-configured at the factory to your specific needs, with up to 14 isolated outputs.

There are thousands of combinations available for the modular series. This solution provides engineers with one of the fastest ways to procure custom configured power supplies with safety and EMC certificates.

*These modular power supplies are custom orders. For all inquiries including specific lead times, please contact Jameco's Power Supply Department at 1-800-794-9100 ext. 3.*



## Output Configuration Guide

**MP** [ ] [ ] [ ] - [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

SLOT 1   SLOT 2   SLOT 3   SLOT 4   SLOT 5   SLOT 6   SLOT 7

→ Max. output wattage (450/650/1K0)

→ Modular power with PFC

\* 450W/650W (5 SLOT)      For MP1K0 only

\* 1000W (7 SLOT)      Parallel or option code

**EXAMPLE**

**MP 650 - A 2 E H U** →

SLOT 5  
O/P: 24V@2.5A, 5V@8A

SLOT 4 - O/P: 24V@6.5A

SLOT 2,3 - O/P: 12V@25A

SLOT 1-O/P: 2V@25A

| Single output (MS-75) 1 SLOT (75W max) |            |              |            |
|--|------------|--------------|------------|
| Voltage Code                           | Output     | Voltage Code | Output     |
| L                                      | 3.3V 0-15A | O            | 15V 0-15A  |
| M                                      | 5V 0-15A   | P            | 24V 0-3.2A |
| N                                      | 12V 0-6.3A | Q            | 48V 0-1.6A |

| Dual output (MD-100) 1 SLOT (100W max) |              |              |         |
|--|--------------|--------------|---------|
| Voltage Code                           | Output 1     | Output 2     | Max.(W) |
| R                                      | 5V 2.0-10A   | 5V 0.0-8A    | 90      |
| S                                      | 5V 2.0-10A   | 12V 0.0-5.8A | 100.4   |
| T                                      | 5V 2.0-10A   | 15V 0.0-4.7A | 101     |
| U                                      | 24V 0.5-3.0A | 5V 0.0-10A   | 100     |
| V                                      | 24V 0.6-3.0A | 12V 0.0-4.7A | 100.8   |
| W                                      | 12V 1.0-5.0A | 12V 0.0-5.8A | 100.8   |
| X                                      | 15V 1.0-4.7A | 15V 1.0-4.7A | 100.5   |

| Single output (MS-150) 1 SLOT (150W max) |            |
|--|------------|
| Voltage Code                             | Output     |
| A  | 2V 0-25A   |
| B  | 3.3V 0-25A |
| C  | 5V 0-25A   |
| D  | 7.5V 0-18A |
| E  | 12V 0-13A  |
| F  | 15V 0-10A  |
| G  | 18V 0-8.5A |
| H  | 24V 0-6.5A |
| I  | 27V 0-5.8A |
| J  | 33V 0-4.7A |
| K  | 48V 0-3.2A |

| Single output (MS-300) 2 SLOT (300W max) |             |
|--|-------------|
| Voltage Code                             | Output      |
| 2A                                       | 2V 0-50A    |
| 2B                                       | 3.3V 0-50A  |
| 2C                                       | 5V 0-50A    |
| 2D                                       | 7.5V 0-40A  |
| 2E                                       | 12V 0-25A   |
| 2F                                       | 15V 0-20A   |
| 2G                                       | 18V 0-16.7A |
| 2H                                       | 24V 0-12.5A |
| 2I                                       | 27V 0-11.2A |
| 2J                                       | 33V 0-9.1A  |
| 2K                                       | 48V 0-6.3A  |

*These modular power supplies are custom orders. For all inquiries including specific lead times, please contact Jameco's Power Supply Department at 1-800-794-9100 ext. 3.*

## General Specifications

### Features:

- Zero voltage switching technology
- Worldwide ITE safety approvals
- High efficiency operation
- Thousands of possible output configurations
- Remote control on each output module
- Remote sense on each individual output
- Active PFC, PF>0.95
- Universal AC input/full range
- Built-in parallel function (MS-300)
- Fan alarm function
- Forced air cooling
- 2.5 inch profile

| Model No.                   | MP450   | MP650                     | MP1K0                     |
|-----------------------------|---|---------------------------|---------------------------|
| AC Input Voltage Range      | 85-264VAC or 12-370VDC  |                           |                           |
| Power Factor                | PF>0.95/230VAC, PF > 0.98/ 115VAC at full load  |                           |                           |
| AC Inrush Current (max.)    | Cold start, 40A at 230VAC   | Cold start, 50A at 230VAC | Cold start, 40A at 230VAC |
| Max Output Wattage          | 450W  | 650W                      | 1000W                     |
| Efficiency (Typical)        | 83%   | 85%                       | 84%                       |
| Over Temperature Protection | Output shutdown, auto recovery  |                           |                           |
| Fan Alarm                   | Output shutdown, when fan malfunction   |                           |                           |
| Withstand Volatge           | I/P - O/P: 3KVAC, I/P - FG: 1.5KVAC, O/P - FG: 0.5KVAC, 1 minute  |                           |                           |
| Working Temperature         | -20°C ~ +50°C @ 100%, +70°C @ 50% load  |                           |                           |
| Safety Standards            | UL60950-1, TUV EN6095-1   |                           |                           |
| EMC Standards               | Compliance to EN55022 class B, EN61000-4-2, 3, 4, 5, 6, 8, 11, ENV50204, EN55024 light industry level, criteria A |                           |                           |
| Connection                  | Input side: 3P/10mm pitch terminal block & JST B3B-XH   |                           |                           |
| Dimensions (L" x W" x H")   | 10.0 x 5.0 x 2.5  | 10.9 x 5.0 x 2.5          | 10.9 x 7.0 x 2.5          |



## DIN-Rail Switching Power Supplies



373182 (Fig. 1)



192699 (Fig. 2)



212291  
(Fig. 3)



212274  
(Fig. 4)



221892  
(Fig. 5)



252663 (Fig. 6)



- Low cost, high reliability
- Universal AC input range
- Soft-start circuit, limiting AC surge current
- Short-circuit, overload, over-voltage protected
- 100% full-load burn-in test
- For DIN-Rail terminal blocks see pg 157

| Part No. | Product No.    | Fig.                         | Pwr (W)                     | Output Volts@Curr. | Input Voltage (VAC @ Hz/VDC)    | Input Current @ Maximum Load | Size (L" x W" x H") | Wt. (lbs.) | 1       | 10      | 25      |
|----------|----------------|------------------------------|-----------------------------|--------------------|---------------------------------|------------------------------|---------------------|------------|---------|---------|---------|
| 373174   | DR-30-5        | 1                            | 15                          | 5VDC @ 3A          | 85-264 @ 47-63/120-370          | 1.1A(115V)/600mA(230V)       | 3.1 x 3.7 x 2.2     | 0.6        | \$39.99 | \$35.99 | \$32.39 |
| 373182   | DR-30-12       | 1                            | 24                          | 12VDC @ 2A         | 85-264 @ 47-63/120-370          | 1.1A(115V)/600mA(230V)       | 3.1 x 3.7 x 2.2     | 0.6        | 39.99   | 35.99   | 32.39   |
| 373191   | DR-30-15       | 1                            | 30                          | 15VDC @ 2A         | 85-264 @ 47-63/120-370          | 1.1A(115V)/600mA(230V)       | 3.1 x 3.7 x 2.2     | 0.6        | 39.99   | 35.99   | 32.39   |
| 373203   | DR-30-24       | 1                            | 36                          | 24VDC @ 1.5A       | 85-264 @ 47-63/120-370          | 1.1A(115V)/600mA(230V)       | 3.1 x 3.7 x 2.2     | 0.6        | 39.99   | 35.99   | 32.39   |
| 212303   | DR-4505        | 2                            | 25                          | 5VDC @ 5A          | 85-264 @ 47-63/120-370          | 1.5A(115V)/750mA(230V)       | 3.0 x 2.6 x 3.6     | 0.9        | 45.95   | 35.19   | 32.99   |
| 192699   | DR-4512        | 2                            | 42                          | 12VDC @ 3.5A       | 85-264 @ 47-63/120-370          | 1.5A(115V)/750mA(230V)       | 3.0 x 2.6 x 3.6     | 0.7        | 45.95   | 35.19   | 32.99   |
| 221875   | DR-4515        | 2                            | 42                          | 15VDC @ 2.8A       | 85-264 @ 47-63/120-370          | 1.5A(115V)/750mA(230V)       | 3.0 x 2.6 x 3.6     | 0.9        | 45.95   | 35.19   | 32.99   |
| 192681   | DR-4524        | 2                            | 48                          | 24VDC @ 2A         | 85-264 @ 47-63/120-370          | 1.5A(115V)/750mA(230V)       | 3.0 x 2.6 x 3.6     | 0.7        | 45.95   | 35.19   | 32.99   |
| 373212   | DR-60-5        | 1                            | 32.5                        | 5VDC @ 6.5A        | 85-264 @ 47-63/124-370          | 1.8A(115V)/1.0A(230V)        | 3.1 x 3.7 x 2.2     | 0.7        | 50.89   | 45.80   | 41.22   |
| 373230   | DR-60-12       | 1                            | 54                          | 12VDC @ 4.5A       | 85-264 @ 47-63/124-370          | 1.8A(115V)/1.0A(230V)        | 3.1 x 3.7 x 2.2     | 0.7        | 50.89   | 45.80   | 41.22   |
| 373238   | DR-60-15       | 1                            | 60                          | 15VDC @ 4A         | 85-264 @ 47-63/124-370          | 1.8A(115V)/1.0A(230V)        | 3.1 x 3.7 x 2.2     | 0.7        | 50.89   | 45.80   | 41.22   |
| 373246   | DR-60-24       | 1                            | 60                          | 24VDC @ 2.5A       | 85-264 @ 47-63/124-370          | 1.8A(115V)/1.0A(230V)        | 3.1 x 3.7 x 2.2     | 0.7        | 50.89   | 45.80   | 41.22   |
| 212291   | DR-7512        | 3                            | 75                          | 12VDC @ 6.3A       | 85-264 @ 47-63/120-370          | 2.0A(115V)/1.2A(230V)        | 3.9 x 2.1 x 4.9     | 1.2        | 73.95   | 56.09   | 51.69   |
| 212282   | DR-7524        | 3                            | 75                          | 24VDC @ 3.2A       | 85-264 @ 47-63/120-370          | 2.0A(115V)/1.2A(230V)        | 3.9 x 2.1 x 4.9     | 1.2        | 73.95   | 56.09   | 51.69   |
| 212274   | DR-12012       | 4                            | 120                         | 12VDC @ 10A        | 88-132/176-264* @ 47-63         | 2.8A(115V)/1.7A(230V)        | 2.6 x 3.9 x 4.9     | 1.4        | 85.95   | 64.89   | 60.49   |
| 212266   | DR-12024       | 4                            | 120                         | 24VDC @ 5A         | 88-132/176-264* @ 47-63         | 2.8A(115V)/1.7A(230V)        | 2.6 x 3.9 x 4.9     | 1.4        | 85.95   | 64.89   | 60.49   |
| 221904   | DR-12048       | 4                            | 120                         | 48VDC @ 2.5A       | 88-132/176-264* @ 47-63         | 2.8A(115V)/1.7A(230V)        | 2.6 x 3.9 x 4.9     | 1.4        | 76.95   | 69.26   | 62.33   |
| 221892   | DRP-24024      | 5                            | 240                         | 24VDC @ 10A        | 85-264 @ 47-63/120-370          | 3.5A(115V)/1.8A(230V)        | 3.9 x 4.9 x 4.9     | 2.4        | 156.95  | 141.26  | 127.13  |
| 221883   | DRP-24048      | 5                            | 240                         | 48VDC @ 5.0A       | 85-264 @ 47-63/120-370          | 3.5A(115V)/1.8A(230V)        | 3.9 x 4.9 x 4.9     | 2.4        | 156.95  | 141.26  | 127.13  |
| 373123   | DRT-240-24     | 5                            | 240                         | 24VDC @ 10A        | 3-phase 340-550 @ 47-63/480-780 | 0.95A(400V)/0.75A(500V)      | 3.9 x 4.9 x 4.9     | 2.9        | 172.35  | 155.12  | 139.60  |
| 373114   | DRT-240-48     | 5                            | 240                         | 48VDC @ 5A         | 3-phase 340-550 @ 47-63/480-780 | 0.95A(400V)/0.75A(500V)      | 3.9 x 4.9 x 4.9     | 2.9        | 172.35  | 146.50  | 109.87  |
| 252663   | DRP-48024      | 6                            | 480                         | 24VDC @ 20A        | 180-264 @ 47-63/25-370          | 4.0A(230V)                   | 8.9 x 3.9 x 4.9     | 4.6        | 218.95  | 207.99  | 197.60  |
| 252655   | DRP-48048      | 6                            | 480                         | 48VDC @ 10A        | 180-264 @ 47-63/25-370          | 4.0A(230V)                   | 8.9 x 3.9 x 4.9     | 4.6        | 218.95  | 207.99  | 197.60  |
| 295938   | DRP-480S-24    | 6                            | 480                         | 24VDC @ 20A        | 90-132/180-264* @ 47-63/254-370 | 11.0A(115V)/4.0A(230V)       | 8.9 x 3.9 x 4.9     | 4.6        | 225.35  | 215.03  | 204.28  |
| 301306   | DRP-480S-48    | 6                            | 480                         | 48VDC @ 10A        | 90-132/180-264* @ 47-63/254-370 | 11.0A(115V)/4.0A(230V)       | 8.9 x 3.9 x 4.9     | 4.6        | 225.35  | 215.03  | 204.28  |
| 372576   | DRT-480-24     | 6                            | 480                         | 24VDC @ 20A        | 3-phase 340-550 @ 47-63/480-750 | 1.7A(400V)/1.3A(500V)        | 8.9 x 3.9 x 4.9     | 5.5        | 206.95  | 186.26  | 167.63  |
| 373106   | DRT-480-48     | 6                            | 480                         | 48VDC @ 10A        | 3-phase 340-550 @ 47-63/480-750 | 1.7A(400V)/1.3A(500V)        | 8.9 x 3.9 x 4.9     | 5.5        | 206.95  | 175.91  | 131.93  |
| 373131   | DRT-960-24     | 6                            | 960                         | 24VDC @ 40A        | 3-phase 340-550 @ 47-63         | 2.0A(400V)/1.6A(500V)        | 10.9 x 3.9 x 4.9    | 7.3        | 436.49  | 406.43  | 394.23  |
| 373149   | DRT-960-48     | 6                            | 960                         | 48VDC @ 20A        | 3-phase 340-550 @ 47-63         | 2.0A(400V)/1.6A(500V)        | 10.9 x 3.9 x 4.9    | 7.3        | 436.49  | 406.43  | 394.23  |
| Part No. | Cross Ref. No. | Description                  | Material                    | Type               | Length                          | 1                            | 10                  | 100        |         |         |         |
| 248736   | 2094.0         | Prepunched DIN mounting rail | Zinc bichromate plate steel | TS35 x 7.5         | 1 meter (39")                   | \$6.79                       | \$5.45              | \$4.10     |         |         |         |

\* Switch selectable † With Power Factor Correction



## DIN-Rail Switching Power Supplies

| Part No. | Product No.    | Power (W) | Output Volts@Current | Input Voltage (VAC @ Hz/VDC)  | Size (L" x W" x H") | Wt. (lbs.) | 1        | 10       | 25       |
|----------|----------------|-----------|----------------------|-------------------------------|---------------------|------------|----------|----------|----------|
| 478661   | SDP3-15-100T   | 15        | 12-15VDC @ 4.2-3.4A  | 85-264 @ 43-67/90-375         | 2.9 x 1.7 x 3.5     | 0.5        | \$115.15 | \$112.59 | \$111.39 |
| 478645   | SCP30S-DN      | 30        | 5VDC @ 6A            | 85-264 @ 50/60                | 4.7 x 2.5 x 1.2     | 1.5        | 124.95   | 120.95   | 117.55   |
| 478653   | SDN2.5-24-100P | 60        | 24-28VDC @ 2.5A      | 85-132/176-264 @ 47-63/90-375 | 4.5 x 1.9 x 4.8     | 1.6        | 137.35   | 131.95   | 126.99   |



478653  
SDN Series

## 13.8VDC Precision Regulated Power Supplies

- Heavy duty 5'8" 3-prong power cord
- Illuminated rocker switch
- Short-circuit protection
- Fuse protected
- Output mating terminals: see pg 162 for cigarette plugs & pg 284 for banana terminal plugs

135845  
Banana/  
Cigarette



136581  
Banana  
terminal



138668  
Banana  
terminal  
(rear)



| Part No. | Model No. | Power (W) | Output Volts@Curr. | Input Voltage | Output Terminals                  | Size (L" x W" x H") | Wt. (lbs.) | 1       | 10      | 25      |
|----------|-----------|-----------|--------------------|---------------|-----------------------------------|---------------------|------------|---------|---------|---------|
| 135845   | RPS1204   | 55.2      | 13.8VDC @ 4A       | 115VAC @ 60Hz | Banana terminals / cigarette plug | 6.7 x 5.2 x 3.2     | 5.5        | \$31.95 | \$28.85 | \$26.29 |
| 136581   | RPS1207   | 96.6      | 13.8VDC @ 7A       | 115VAC @ 60Hz | Banana terminals                  | 8.7 x 5.7 x 3.6     | 8.5        | 64.15   | 57.75   | 52.39   |
| 138668   | 38-381    | 138.0     | 13.8VDC @ 10A      | 115VAC @ 60Hz | Banana terminals (rear)           | 7.0 x 6.6 x 4.3     | 10.0       | 69.95   | 62.95   | 56.95   |
| 138676   | 52-192012 | 276.0     | 13.8VDC @ 20A      | 115VAC @ 60Hz | Banana terminals                  | 10.0 x 7.8 x 4.4    | 15.9       | 109.95  | 99.95   | 89.95   |

# P/N 136581 includes overheating protection

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

## We're Listening to What You Need

Our goal is to provide you with more of what you want. Let us know how we can better serve your electronics needs.  
Please send your requests to [NewProducts@Jameco.com](mailto:NewProducts@Jameco.com).

## Rackmount Power Supplies

### N + 1 DC Power System with Battery Back-up Charging

- N+1 redundancy
- Volt/ampere meter
- Input voltage range: 105 to 125VAC, 60Hz
- Remote monitoring and indication
- Forced air cooling by 2 fans
- Short-circuit, current limit, fan failure, input surge suppression protection
- Chassis and cover: steel (black epoxy powder coat)
- Size: 19"W x 15.9"D x 3.6"H



| Part No. | Product No.   | Output (VDC @ A) | Wt. (lbs.) | 1        | 10       | 25       |
|----------|---------------|------------------|------------|----------|----------|----------|
| 673272   | SEC-40BRM +   | 13.8 @ 40        | 20.5       | \$449.95 | \$427.45 | \$406.09 |
| 673281   | SEC-60BRM +   | 13.8 @ 60        | 22.0       | 507.65   | 473.25   | 453.49   |
| 673299   | SEC-80BRM +   | 13.8 @ 80        | 23.5       | 584.35   | 555.19   | 527.39   |
| 673310   | SEC-100BRM +  | 13.8 @ 100       | 25.0       | 659.95   | 626.95   | 595.65   |
| 677396   | SEC-2430BRM + | 27.6 @ 30        | 22         | 524.39   | 498.15   | 473.25   |
| 677484   | SEC-2450BRM + | 27.6 @ 50        | 25         | 671.75   | 638.15   | 606.25   |

+ This product is a special order, non-cancelable, non-returnable and may take up to 2 weeks to ship.

**Commercial Customers**  
Open an account with us to consolidate  
your monthly billing and save time. 1-800-831-4242

### 600W Single Output

- AC Input active surge current limiting
- Forced air cooling by built-in DC fan
- Built-in remote sense function
- Ripple and noise (max.): 150mVp-p
- Input voltage: 90-132VAC/180-264VAC switch selectable
- Short-circuit, overload, overvoltage, overtemperature protection
- Size: 19.5"W x 5.0"D x 3.5"H



| Part No. | Product No.   | Output (VDC @ A) | 1        | 10       | 25       |
|----------|---------------|------------------|----------|----------|----------|
| 673336   | 600-12RM +    | 12 @ 50          | \$252.75 | \$240.15 | \$228.15 |
| 673395   | SE-600-24RM + | 24 @ 25          | 252.75   | 240.15   | 228.15   |
| 673408   | SE-600-48RM + | 48 @ 12.5        | 252.75   | 240.15   | 228.15   |

### 2 x 23 Amp

- Input voltage: 100 to 130VAC @ 50/60Hz
- Output current (surge): 24A x 2
- Chassis: aluminum (black anodized)
- Cover: steel (black epoxy powder coat)
- UL/CUL approved
- Size: 19"W x 8.7"D x 3.5"H



| Part No. | Product No.  | Output (VDC @ A) | Wt. (lbs.) | 1        | 10       | 25       |
|----------|--------------|------------------|------------|----------|----------|----------|
| 673328   | SEC-1223R2 + | 13.8 @ 23Ax2     | 8.2        | \$240.15 | \$228.15 | \$216.75 |

## Linear Power Supplies



### 5-24VDC Linear Power Supplies

#### 478670/478688:

- Easy-to-install screw terminal connections
- Fast transient response; ideal for test applications
- Low noise, extremely quiet DC output for noise sensitive or analog circuitry
- Automatic resetting overload protection
- Industry standard footprint
- Short-circuit protected

| Part No. | Model No.       | Input Voltage          | Output Volts@Curr. | 1       | 10      | 25      |
|----------|-----------------|------------------------|--------------------|---------|---------|---------|
| 478670   | SLS-05-030-1T + | 100-240VAC selectable  | 5VDC @ 3A          | \$41.09 | \$40.66 | \$40.26 |
| 478688   | SLS-24-012T +   | 100-240VAC selectable  | 24VDC @ 1.2A       | 41.09   | 40.66   | 40.26   |
| 478637   | 83-24-225-3 +   | 104-127VAC, 208-254VAC | 24VDC @ 2.5A       | 139.95  | 137.95  | 136.39  |

#### 478637:

- Low noise output
- Remote sensing
- Designed for both bench and rack use
- Current limiting – automatic reset
- Completely protected short circuit proof; automatic foldback
- Isolated floating output
- UL Recognized, CSA Certified



### 108 Watt Desktop Power Supplies

- Input voltage: 88-132VAC/176-264VAC @ 47-63Hz (switch selectable)
- Short-circuit/overload/overvoltage/overtemperature protection
- Front panel on/off switch & 3 color LED loading indicator
- Back panel 3-prong AC receptacle and banana plugs
- Line regulation: ±5%
- Size: 5.9"W x 5.5"D x 3.3"H
- Weight: 3.3 lbs.

| Part No. | Product No.    | Description    | 1       | 10      | 25      |
|----------|----------------|----------------|---------|---------|---------|
| 673230   | ESP-120-13.5 + | 13.5V @ 0 - 8A | \$69.69 | \$67.85 | \$63.99 |
| 673256   | ESP-120-27 +   | 27V @ 0 - 4A   | 69.69   | 67.85   | 63.99   |

#### 673230:

- Ripple and noise max.: 120mVp-p
- Voltage adjustment range: 12VDC to 15VDC
- Efficiency (typical): 81%
- Load reg.: ±2%



#### 673256:

- Ripple and noise max.: 150mVp-p
- Voltage adjustment range: 24VDC to 30VDC
- Efficiency (typical): 83%
- Load reg.: ±1%



For more Power-One power supplies visit [www.Jameco.com](http://www.Jameco.com)

## Linear Power Supplies

- Worldwide AC input capabilities – 100/120/220/230/240 VAC
- Low output ripple
- 100% burn-in test
- 2-year warranty
- Output regulation: ±0.05%
- UL/CSA/TUV approvals
- CE marked to low voltage directive
- Overvoltage protection standard on 5V single outputs
- Load & line regulation: ±0.05%
- MTBF in excess of 300,000 hours

| Part No. | Product No.   | Output Voltage (VAC) @ Current (A)         | Ripple & Noise (mV p-p) | Size (L" x W" x H") | 1       | 10      | 100     |
|----------|---------------|--|-------------------------|---------------------|---------|---------|---------|
| 697371   | HAA15-0.8-A + | +12@1.0; -5@0.4                            | 5.0                     | 6.50 x 4.00 x 2.10  | \$63.79 | \$60.75 | \$57.86 |
| 697389   | HB24-1.2-A +  | +24@1.2                                    | 3.0                     | 4.87 x 4.00 x 2.10  | 51.85   | 49.36   | 47.01   |
| 697397   | HB5-3/OVP-A + | +5@3.0                                     | 5.0                     | 4.87 x 4.00 x 2.10  | 51.85   | 49.36   | 47.01   |
| 697400   | HC24-2.4-A +  | +24@2.4                                    | 3.0                     | 5.62 x 4.87 x 2.95  | 74.25   | 70.71   | 67.35   |
| 697418   | HCAA-60W-A +  | +5@6.0; +12 to +15 @ 1.0; -5@0.4           | 5.0                     | 9.00 x 4.87 x 3.28  | 133.05  | 126.72  | 120.69  |
| 697426   | HCC15-3-A +   | +12@3.4; -12@3.4                           | 5.0                     | 9.38 x 4.87 x 3.28  | 130.09  | 123.87  | 117.97  |
| 697442   | HN24-3.6-A +  | +24@3.6                                    | 3.0                     | 7.00 x 4.87 x 3.28  | 103.65  | 98.72   | 94.02   |
| 697451   | HTAA-16W-A +  | +5@2.0; +12 to +15 @ 0.4; -12 to -15 @ 0.4 | 5.0                     | 6.50 x 4.00 x 2.10  | 81.75   | 77.83   | 74.13   |

### 30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 322.

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

# 0.5 to 10-Watt Isolated DC-to-DC Converters

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |

## 0.5 & 1-Watt Regulated & Unregulated Encapsulated

- 1000VDC isolation
- Input filter: capacitor type
- Protection: short-circuit
- Working temp.: -15°C to +60°C
- No external components needed
- One-year warranty
- 100% burn-in test



## 3, 5 & 10-Watt Regulated & Unregulated Encapsulated

- 1000VDC isolation
- 2:1 wide input range
- Shielded metal case
- Working temperature: -15°C to +60°C
- No external components needed
- Protection: short-circuit & overload
- Input filter: PI network
- 100% burn-in test
- One-year warranty



| Jameco Part No. | Product No. | Input Range | Output                 |       | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Ripple & Noise (mV p-p) | Pricing |        |        |        |
|-----------------|-------------|-------------|------------------------|-------|---------------------|------|----------------|----------------|-------------------------|---------|--------|--------|--------|
|                 |             |             | Voltage@Current        | Power |                     |      |                |                |                         | 1       | 10     | 25     | 100    |
| 213226          | SRS-0505    | 4.5-5.5V    | +5V@100mA              | 0.5W  | 0.88x0.39x0.33      | 8    | 1.0            | 1.0            | 100                     | \$4.89  | \$4.45 | \$4.25 | \$4.09 |
| 216831          | SPR01L-12   | 4.5-5.5V    | +12V@84mA              | 1W    | 0.77x0.28x0.4       | 4    | 1.0            | 1.0            | 100                     | 8.95    | 8.06   | 7.25   | 6.52   |
| 213269          | SCW03A-05   | 9-18V       | +5V@600mA              | 3W    | 1.25x0.8x0.48       | 10   | 1.0            | 0.5            | 100                     | 15.49   | 13.95  | 12.59  | 11.29  |
| 155919          | DCW03A-05   | 9-18V       | +5V@300mA; -5V@300mA   | 3W    | 1.25x0.8x0.48       | 10   | 1.0            | 0.5            | 100                     | 20.95   | 18.89  | 16.99  | 15.29  |
| 161702          | DCW03A-12   | 9-18V       | +12V@125mA; -12V@125mA | 3W    | 1.25x0.8x0.48       | 10   | 1.0            | 0.5            | 100                     | 20.95   | 18.89  | 16.99  | 15.29  |
| 220389          | SLW05L-12   | 4.5-9V      | +12V@417mA             | 5W    | 2x1x0.44            | 5    | 0.2            | 0.5            | 100                     | 24.95   | 22.49  | 20.25  | 18.25  |
| 220354          | SLW05A-033  | 9-18V       | +3.3V@1500mA           | 5W    | 2x1x0.44            | 5    | 0.2            | 0.5            | 100                     | 19.95   | 17.95  | 16.16  | 14.54  |
| 216929          | SLW05A-05   | 9-18V       | +5V@1000mA             | 5W    | 2x1x0.44            | 5    | 1.0            | 0.2            | 100                     | 24.95   | 22.49  | 20.25  | 18.25  |
| 216882          | SLW05A-15   | 9-18V       | +15V@333mA             | 5W    | 2x1x0.44            | 5    | 1.0            | 0.2            | 100                     | 24.95   | 22.49  | 20.25  | 18.25  |
| 216937          | SLW05B-05   | 18-36V      | +5V@1000mA             | 5W    | 2x1x0.44            | 5    | 1.0            | 0.2            | 100                     | 24.95   | 22.49  | 20.25  | 18.25  |
| 216911          | SLW05B-12   | 18-36V      | +12V@417mA             | 5W    | 2x1x0.44            | 5    | 1.0            | 0.2            | 100                     | 21.95   | 19.76  | 17.78  | 16.00  |
| 213234          | SLW05C-05   | 36-72V      | +5V@1000mA             | 5W    | 2x1x0.44            | 5    | 1.0            | 0.2            | 100                     | 17.25   | 15.50  | 13.95  | 12.56  |
| 220337          | SKE10B-033  | 18-36V      | +3.3V@2400mA           | 8W    | 2x1x0.44            | 5    | 0.3            | 0.5            | 50                      | 29.95   | 26.99  | 21.59  | 16.19  |
| 216962          | SKE10A-05   | 9-18V       | +5V@2000mA             | 10W   | 2x1x0.44            | 5    | 0.3            | 1.0            | 50                      | 33.95   | 30.55  | 26.95  | 24.55  |
| 216980          | SKE10A-15   | 9-18V       | +15V@666mA             | 10W   | 2x1x0.44            | 5    | 0.3            | 1.0            | 60                      | 33.95   | 30.56  | 24.44  | 18.33  |
| 216953          | SKE10B-05   | 18-36V      | +5V@2000mA             | 10W   | 2x1x0.44            | 5    | 0.3            | 0.5            | 50                      | 33.95   | 30.55  | 26.95  | 24.55  |
| 217024          | SKE10B-12   | 18-36V      | +12V@840mA             | 10W   | 2x1x0.44            | 5    | 0.3            | 0.5            | 60                      | 29.95   | 26.96  | 21.56  | 16.86  |
| 216945          | SKE10C-05   | 36-72V      | +5V@2000mA             | 10W   | 2x1x0.44            | 5    | 0.3            | 1.0            | 50                      | 33.95   | 30.56  | 24.44  | 18.33  |
| 217032          | DKE10A-05   | 9-18V       | +5V@1000mA; -5V@1000mA | 10W   | 2x1x0.44            | 5    | 0.3            | 0.5            | 50                      | 34.95   | 31.46  | 25.16  | 18.87  |
| 217092          | DKE10A-12   | 9-18V       | +12V@420mA; -12V@420mA | 10W   | 2x1x0.44            | 5    | 0.3            | 0.5            | 60                      | 34.95   | 31.45  | 27.95  | 25.45  |
| 217112          | DKE10A-15   | 9-18V       | +15V@333mA; -15V@333mA | 10W   | 2x1x0.44            | 5    | 0.3            | 0.5            | 60                      | 34.95   | 31.45  | 27.95  | 25.45  |
| 217075          | DKE10B-15   | 18-36V      | +15V@333mA; -15V@333mA | 10W   | 2x1x0.44            | 5    | 0.3            | 0.5            | 60                      | 34.95   | 31.45  | 27.95  | 25.45  |

For More Power-One Converters and Input Filters visit [www.Jameco.com](http://www.Jameco.com)



## DC-DC Half-Brick Converter

- Input voltage range (V): 36-72
- Output voltage@current: 3.3V@30A
- Ripple and noise (mVp-p): 100
- 1500V isolation
- Input voltage (V): 48
- Typical efficiency: 83%
- Short-circuit/over-current protection
- Line regulation/load regulation: 0.2%V out
- High efficiency
- Open frame packaging
- Set point accuracy: ±1%

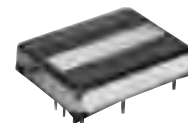


| Part No. | Product No.  | Pins | Size (L x W x H)      | 1        | 10       | 100      |
|----------|--------------|------|-----------------------|----------|----------|----------|
| 697434   | HES100XE-ANT | 9    | 2.28" x 2.40" x 0.18" | \$213.85 | \$207.74 | \$201.80 |



## FC Series DC-DC Converter Input Filters

- Optimized for Power-Ones high density, board mounted products
- Common-mode & differential-mode filtering
- >30dB insertion loss @ 500kHz
- PCB mountable
- Industry standard input
- 100VDC operation
- 1500V isolation



| Jameco Part No. | Product No. | Current (A) | Insertion Loss Differential Mode (dB) | Insertion Loss Common Mode (dB) | Typ. Resistance (mΩ) | Size (L" x W" x H") | Pricing |         |         |         |
|-----------------|-------------|-------------|---------------------------------------|---------------------------------|----------------------|---------------------|---------|---------|---------|---------|
|                 |             |             |                                       |                                 |                      |                     | 1       | 10      | 100     | 250     |
| 697362          | FC100V5A    | 5           | 28                                    | 30                              | 27                   | 1.0 x 1.0 x 0.40    | \$19.95 | \$18.98 | \$18.08 | \$17.22 |
| 697354          | FC100V10A   | 10          | 31                                    | 28                              | 17                   | 2.0 x 1.0 x 0.44    | 22.45   | 21.36   | 20.34   | 19.37   |

## Extra Savings for You

To qualify for volume discounts be sure to contact our sales force on large quantity orders and scheduled monthly shipments!

1-800-794-9100



♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product ♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)



## 15-Watt Encapsulated

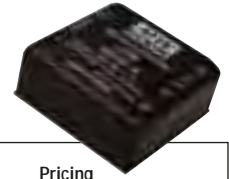
- Isolation voltage: 1000VDC
- Free-air convection cooling
- Input filter: Pi network
- Shielded metal case
- 2:1 wide input range
- Working temperature: -15°C to +60°C
- 100% burn-in test
- Protection: short-circuit & overload
- One-year warranty



| Jameco Part No. | Product No. | Input Range | Output                 |       | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Ripple & Noise (mV p-p) | Pricing |         |         |         |
|-----------------|-------------|-------------|------------------------|-------|---------------------|------|----------------|----------------|-------------------------|---------|---------|---------|---------|
|                 |             |             | Voltage@Current        | Power |                     |      |                |                |                         | 1       | 10      | 25      | 100     |
| 155716          | SKE15A-05   | 9-18V       | +5V@3000mA             | 15W   | 2x2x0.43            | 5    | 0.3            | 0.5            | 50                      | \$34.95 | \$31.49 | \$28.15 | \$25.35 |
| 155708          | SKE15A-12   | 9-18V       | +12V@1250mA            | 15W   | 2x2x0.43            | 5    | 0.3            | 0.5            | 60                      | 34.95   | 31.19   | 28.15   | 25.35   |
| 155695          | SKE15A-24   | 9-18V       | +24V@625mA             | 15W   | 2x2x0.43            | 5    | 0.3            | 0.5            | 80                      | 34.95   | 31.49   | 28.15   | 25.35   |
| 213277          | SKE15B-05   | 18-36V      | +5V@3000mA             | 15W   | 2x2x0.43            | 5    | 0.3            | 0.5            | 50                      | 34.95   | 31.49   | 28.15   | 25.35   |
| 213285          | SKE15B-12   | 18-36V      | +12V@1250mA            | 15W   | 2x2x0.43            | 5    | 0.3            | 0.5            | 60                      | 34.95   | 31.49   | 28.15   | 25.35   |
| 161729          | DKE15A-12   | 9-18V       | +12V@625mA; -12V@625mA | 15W   | 2x2x0.43            | 5    | 0.3            | 0.5            | 60                      | 35.95   | 32.36   | 25.88   | 19.41   |
| 213293          | DKE15A-24   | 9-18V       | +24V@313mA; -24V@313mA | 15W   | 2x2x0.43            | 5    | 0.3            | 0.5            | 80                      | 32.95   | 29.69   | 26.90   | 24.05   |

## 20-Watt Encapsulated

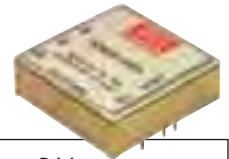
- Isolation voltage: 1000VDC
- Output trim
- Free-air convection cooling
- Working temp.: -40°C to +71°C
- Industry standard package
- 100% burn-in test
- Shielded metal case
- Input filter: Pi network
- Protection: short-circuit & overload
- One-year warranty



| Jameco Part No. | Product No. | Input Range | Output                 |       | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Ripple & Noise (mV p-p) | Pricing |         |         |         |
|-----------------|-------------|-------------|------------------------|-------|---------------------|------|----------------|----------------|-------------------------|---------|---------|---------|---------|
|                 |             |             | Voltage@Current        | Power |                     |      |                |                |                         | 1       | 10      | 25      | 100     |
| 217649          | TKB20C-B    | 36-72V      | +5V@2500mA; ±12V@310mA | 20W   | 1.2x2x0.82          | 8    | 0.2            | 0.2            | 100                     | \$37.79 | \$33.99 | \$31.25 | \$29.89 |

## 30-Watt Encapsulated

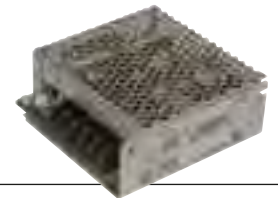
- Isolation voltage: 1000VDC
- 2:1 wide input range
- Working temperature: -25°C to +85°C
- Input filter: Pi-network
- Shielded metal case
- 100% burn-in test
- Output trim
- Remote ON/OFF
- Protection: short-circuit, overload & overvoltage
- One-year warranty



| Jameco Part No. | Product No. | Input Range | Output          |       | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Ripple & Noise (mV p-p) | Pricing |         |         |         |
|-----------------|-------------|-------------|-----------------|-------|---------------------|------|----------------|----------------|-------------------------|---------|---------|---------|---------|
|                 |             |             | Voltage@Current | Power |                     |      |                |                |                         | 1       | 10      | 25      | 100     |
| 217235          | SDM30-12S12 | 9-18V       | +12V@2100mA     | 25.2W | 2x1.8x0.62          | 8    | 1.0            | 1.0            | 100                     | \$34.95 | \$31.77 | \$28.88 | \$26.26 |
| 217243          | SDM30-24S12 | 18-36V      | +12V@2500mA     | 30W   | 2x1.8x0.62          | 8    | 1.0            | 1.0            | 100                     | 45.95   | 41.35   | 37.25   | 33.55   |

## 25-Watt Enclosed

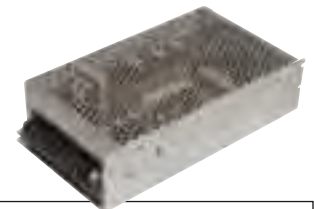
- Isolation voltage: 500VDC
- 2:1 wide input range
- Working temperature: -10°C to +60°C
- Protection: short-circuit, overload and overvoltage
- Input filter: Pi-network
- Shielded metal case
- 100% burn-in test
- One-year warranty
- See [www.Jameco.com](http://www.Jameco.com) for specifications





| Jameco Part No. | Product No. | Input Range | Output          |       | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Ripple & Noise (mV p-p) | Pricing |         |         |         |
|-----------------|-------------|-------------|-----------------|-------|---------------------|------|----------------|----------------|-------------------------|---------|---------|---------|---------|
|                 |             |             | Voltage@Current | Power |                     |      |                |                |                         | 1       | 10      | 25      | 100     |
| 175662          | SD-25A-5    | 9-18V       | +5V@5000mA      | 25W   | 3.9x3.8x1.4         | 5    | 0.5            | 0.5            | 100                     | \$40.95 | \$30.99 | \$28.99 | \$24.99 |
| 175805          | SD-25A-12   | 9-18V       | +12V@2100mA     | 25.2W | 3.9x3.8x1.4         | 5    | 0.3            | 0.3            | 120                     | 37.95   | 34.16   | 27.32   | 20.49   |
| 175813          | SD-25A-24   | 9-18V       | +24V@1100mA     | 26.4W | 3.9x3.8x1.4         | 5    | 0.2            | 0.2            | 150                     | 40.95   | 30.99   | 28.99   | 24.99   |

## 50, 100 & 150-Watt Enclosed

- Isolation voltage: 1500VDC
- One-year warranty
- 2:1 wide input range
- Protection: short-circuit, overload and overvoltage
- Mounting hardware: use P/Ns 222156 & 222172
- Input filter: Pi-network
- Shielded metal case
- Working temperature: -10°C to +60°C
- 100% burn-in test
- See [www.Jameco.com](http://www.Jameco.com) for specifications



| Jameco Part No. | Product No. | Input Range | Output          |       | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Ripple & Noise (mV p-p) | Pricing |         |         |         |
|-----------------|-------------|-------------|-----------------|-------|---------------------|------|----------------|----------------|-------------------------|---------|---------|---------|---------|
|                 |             |             | Voltage@Current | Power |                     |      |                |                |                         | 1       | 10      | 25      | 100     |
| 212549          | SD-50A-5    | 9-18V       | +5V@10A         | 50W   | 6.3x3.8x1.5         | 5    | 0.5            | 0.5            | 100                     | \$35.79 | \$32.53 | \$29.58 | \$26.89 |
| 212531          | SD-50B-12   | 19-36V      | +12V@4.2A       | 50.4W | 6.3x3.8x1.5         | 5    | 0.3            | 0.3            | 120                     | 51.95   | 46.76   | 37.40   | 28.05   |
| 212514          | SD-50B-24   | 19-36V      | +24V@2.1A       | 50.4W | 6.3x3.8x1.5         | 5    | 0.2            | 0.2            | 150                     | 35.79   | 32.21   | 25.77   | 24.15   |
| 212506          | SD-50C-12   | 36-72V      | +12V@4.2A       | 50.4W | 6.3x3.8x1.5         | 5    | 0.3            | 0.3            | 120                     | 51.95   | 39.99   | 36.99   | 32.99   |
| 216565          | SD-100B-12  | 19-36V      | +12V@8.5A       | 102W  | 7.8x3.9x1.5         | 7    | 0.3            | 0.3            | 120                     | 63.35   | 57.02   | 45.61   | 34.21   |
| 212469          | SD-100C-12  | 36-72V      | +12V@8.5A       | 102W  | 7.8x3.9x1.5         | 7    | 0.3            | 0.3            | 120                     | 63.95   | 53.99   | 50.99   | 44.99   |
| 217270          | SD-150B-12  | 19-36V      | +12V@12.5A      | 150W  | 7.8x4.3x2.0         | 7    | 0.5            | 0.5            | 120                     | 82.95   | 74.66   | 59.72   | 44.79   |

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

# 10 to 60-Watt Isolated DC-to-DC Converters

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |

## 10-Watt Open Frame

### CXA10 Series: Single Output

- Isolation voltage: 1500VDC
- Industry standard footprint
- Remote ON/OFF
- 4:1 input voltage range
- Protection: short-circuit & overload
- Working temperature: -40°C to +100°C
- See [www.Jameco.com](http://www.Jameco.com) for specifications

- 100% burn-in test
- Two-year warranty



For Volume Discounts call 1-800-831-4242

## 15-Watt Open Frame

### CXE15 Series: Single Output

- Isolation voltage: 1500VDC
- Industry standard footprint
- Remote ON/OFF
- No minimum load
- Protection: overvoltage & overcurrent
- Working temperature: -40°C to +65°C
- Output trim



- 100% burn-in test
- Two-year warranty



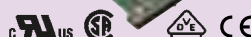
30% Lower All Items

## 20-Watt Open Frame

### CXA20 Series: Single Output

- Isolation voltage: 1500VDC
- Output trim
- Industry standard footprint
- 100% burn-in test
- 4:1 input voltage range
- Protection: overvoltage, overtemperature & short-circuit
- Working temperature: -40°C to +100°C
- See [www.Jameco.com](http://www.Jameco.com) for specifications

- Remote ON/OFF
- No minimum load
- Two-year warranty



## 60-Watt Open Frame

### EXQ60 Series: Dual Output

- Isolation voltage: 1500VDC
- Output trim
- Industry standard footprint
- Remote ON/OFF
- No minimum load
- Protection: short-circuit, overcurrent & overvoltage
- Working temperature: -40°C to +100°C
- See [www.Jameco.com](http://www.Jameco.com) for specifications



| Jameco Part No. | Product No.        | Input Range | Output               |       | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Ripple & Noise (mV p-p) | Pricing |         |         |         |
|-----------------|--------------------|-------------|----------------------|-------|---------------------|------|----------------|----------------|-------------------------|---------|---------|---------|---------|
|                 |                    |             | Voltage@Current      | Power |                     |      |                |                |                         | 1       | 10      | 25      | 100     |
| 219037          | CXA10-48S3V3       | 18-75V      | +3.3V@2400mA         | 7.9W  | 2.0x1.0x0.54        | 6    | 0.1            | 0.2            | 30                      | \$17.89 | \$16.99 | \$16.15 | \$15.34 |
| 219070          | CXE15-48S1V8       | 33-75V      | +1.8V@6000mA         | 10.8W | 2.0x1.0x0.35        | 6    | 0.3            | 2.0            | 40                      | 39.19   | 35.26   | 31.73   | 28.56   |
| 219088          | CXE15-48S2V5       | 33-75V      | +2.5V@6000mA         | 15W   | 2.0x1.0x0.35        | 6    | 0.3            | 1.5            | 40                      | 39.19   | 35.26   | 31.73   | 28.56   |
| 219053          | CXE15-48S3V3       | 33-75V      | +3.3V@4500mA         | 15W   | 2.0x1.0x0.35        | 6    | 0.1            | 0.5            | 70                      | 17.29   | 16.44   | 15.62   | 14.84   |
| 219109          | CXA20-48S3V3       | 18-75V      | +3.3V@6000mA         | 19.8W | 2.0x1.6x0.41        | 8    | 0.1            | 0.2            | 75                      | 40.85   | 36.76   | 33.09   | 29.78   |
| 218894          | EXQ60-48D3V3-2V5-R | 33-75V      | +2.5V@16A; +3.3V@12A | 40W   | 2.3x1.5x0.50        | 7    | —              | —              | 60                      | 113.35  | 109.99  | 91.79   | 82.61   |
| 218907          | EXQ60-48D05-3V3-R  | 33-75V      | +3.3V@15A; +5V@12A   | 60W   | 2.3x1.5x0.50        | 7    | —              | —              | 60                      | 112.95  | 101.16  | 91.48   | 82.33   |

Blue Part No. = Limited Quantity Available

# 6 to 15-Amp Non-Isolated, Point-of-Load DC-to-DC Converters

## 6-Amp SIL06C Series

- di/dt: 10A/μs
- 100% burn-in test
- No minimum load
- Remote ON/OFF
- Ultra-wide trim range
- "Power good" signal
- Planar magnetics technology
- Protection: overcurrent & short-circuit
- Working temperature: 0° to +80°C (derated above 50°C)



219168



## 10-Amp SIL10E Series

- di/dt: 10A/μs
- 100% burn-in test
- No minimum load
- Remote ON/OFF
- 96% efficiency at 3.3V
- Highest power density: 107W/in³
- Planar magnetics technology
- Protection: thermal & short-circuit
- Working temperature: -40°C to +100°C (derated above 70°C)



219133



| Jameco Part No. | Product No.     | Input Range | Output          |       | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Temp. °C    | Efficiency (%) | MTBF (hours) | Pricing |         |         |        |
|-----------------|-----------------|-------------|-----------------|-------|---------------------|------|----------------|----------------|-------------|----------------|--------------|---------|---------|---------|--------|
|                 |                 |             | Voltage@Current | Power |                     |      |                |                |             |                |              | 1       | 10      | 25      | 100    |
| 219150          | SIL06C-05SADJ-V | 4.5V-5.5V   | 0.9-3.3V@6A     | 20W   | 1.2x0.6x0.07        | 8    | 0.2            | 0.5            | 0 to +80    | 89             | 1,300,000    | \$12.35 | \$11.12 | \$10.01 | \$9.01 |
| 219168          | SIL06C-05SADJ-H | 4.5V-5.5V   | 0.9-3.3V@6A     | 20W   | 1.2x0.6x0.53        | 8    | 0.2            | 0.5            | 0 to +80    | 89             | 1,300,000    | 12.35   | 11.12   | 10.01   | 9.01   |
| 219133          | SIL10E-05S2V5-V | 3.0V-5.5V   | 2.5V@10A        | 25W   | 2.0x0.5x0.31        | 11   | 1.0            | 1.0            | -40 to +100 | 94             | 7,042,000    | 21.85   | 19.66   | 17.69   | 15.93  |
| 219117          | SIL10E-05W3V3-V | 4.5V-5.5V   | 0.8-3.6V@10A    | 33W   | 2.0x0.5x0.31        | 11   | 1.0            | 1.0            | -40 to +100 | 95             | 7,042,000    | 23.99   | 21.55   | 19.39   | 17.46  |
| 219125          | SIL10E-05S3V3-V | 4.5V-5.5V   | 3.3V@10A        | 33W   | 2.0x0.5x0.31        | 11   | 1.0            | 1.0            | -40 to +100 | 95             | 7,042,000    | 22.99   | 21.55   | 19.39   | 17.46  |

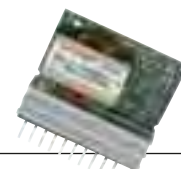
Blue Part No. = Limited Quantity Available

## 15-Amp SIL15C Series

- di/dt: 10A/μs
- Ultra-wide trim range
- Working temperature: 0° to +80°C (derated above 50°C)
- 100% burn-in test
- Protection: over-current & short-circuit
- No minimum load
- Remote ON/OFF
- Two-year warranty



SALE



| Jameco Part No. | Product No.     | Input Range | Output            |       | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Temp. °C | Efficiency (%) | Pricing |        |        |        |
|-----------------|-----------------|-------------|-------------------|-------|---------------------|------|----------------|----------------|----------|----------------|---------|--------|--------|--------|
|                 |                 |             | Voltage @ Current | Power |                     |      |                |                |          |                | 1       | 10     | 25     | 100    |
| 218886          | SIL15C-05SADJ-V | 4.5V-5.5V   | 0.9V-3.3V@15A     | 50W   | 1.20x1.10x0.40      | 13   | 0.2            | 0.5            | 0 to +80 | 89             | \$9.19  | \$8.32 | \$7.59 | \$6.89 |

Blue Part No. = Limited Quantity Available

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# AC-to-DC Regulated Switching Table-Top Power Supplies

We will change any power plug (pg 162) on any table-top power supply (100 pc. minimum) for a small additional charge.

See page 247 for International Power Cords



391770



673651



220441

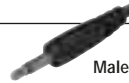


230499

Polarity 1 (center negative)



Female



Male

Polarity 2 (center positive)



DIN M

| Power                                 | Part Number | Brand ▲      | Product Number ▲ | Output                  |                          | Input VAC@Hz      | Output Connector ID x OD/Polarity F = female; M = male | Pwr. Ind. | Color           | Size (L" x W" x H") | Cords* (DC/AC)    | Wt. (lbs.)    | Agency Approvals | Pricing |         |         |         |
|---------------------------------------|-------------|--------------|------------------|-------------------------|--------------------------|-------------------|--|-----------|-----------------|---------------------|-------------------|---------------|------------------|---------|---------|---------|---------|
|                                       |             |              |                  | Pwr (W)                 | Volts (VDC)/ Current (A) |                   |  |           |                 |                     |                   |               |                  | 1       | 10      | 50      | 100     |
| 2-Wire AC Input – Regulated Switching |             |              |                  |                         |                          |                   |  |           |                 |                     |                   |               |                  |         |         |         |         |
| 18-24 Watt                            | 1537555     | APD          | DA-24B12         | 24                      | +12/2.0                  | 100-240@47-63     | 2.5mm x 5.5mm F 2                                      | No        | Black           | 3.6 x 2.2 x 1.3     | 6' <sup>3</sup>   | 0.4           | UL/CUL/TUV/CE    | \$18.95 | \$17.95 | \$16.15 | \$13.95 |
|                                       | 379613      | Mean Well ⚡  | ES25B05-P1JU     | 20                      | +5/4.0                   | 90-264@47-63      | 2.1mm x 5.5mm F 2                                      | Yes       | Black           | 3.1 x 2.1 x 1.3     | 6'6"              | 0.5           | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 377925      | Mean Well ⚡  | P30B-1P2JU       | 20                      | +5/4.0                   | 90-264@47-63      | 2.1mm x 5.5mm F 2                                      | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6'6"              | 0.7           | UL/CSA/TUV/CE    | 23.69   | 21.17   | 19.14   | 18.18   |
|                                       | 380622      | Mean Well ⚡  | ES25B05-P1MU     | 20                      | +5/4.0                   | 90-264@47-63      | 2.5mm x 5.5mm F 2                                      | Yes       | Black           | 3.1 x 2.1 x 1.3     | 6'6"              | 0.5           | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 379761      | Mean Well ⚡  | P30B-1P2MU       | 20                      | +5/4.0                   | 90-264@47-63      | 2.5mm x 5.5mm F 2                                      | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6'6"              | 0.7           | UL/CSA/TUV/CE    | 23.69   | 21.17   | 19.14   | 18.18   |
|                                       | 379920      | Mean Well ⚡  | ES25B07-P1JU     | 22                      | +7.5/2.93                | 90-264@47-63      | 2.1mm x 5.5mm F 2                                      | Yes       | Black           | 3.1 x 2.1 x 1.3     | 6'6"              | 0.5           | UL/CSA/TUV/CE    | 20.69   | 18.62   | 14.90   | 11.16   |
|                                       | 380673      | Mean Well ⚡  | ES25B07-P1MU     | 22                      | +7.5/2.93                | 90-264@47-63      | 2.5mm x 5.5mm F 2                                      | Yes       | Black           | 3.1 x 2.1 x 1.3     | 6'6"              | 0.5           | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 195806      | Horizon ⚡    | DCR920F12        | 18                      | +9/2.0                   | 100-240@50-60     | 2.1mm x 5.5mm F 2                                      | Yes       | Black           | 4.2 x 2.6 x 1.4     | 6'6"              | 0.9           | UL/CUL/TUV/CE    | 26.95   | 24.25   | 21.85   | 19.65   |
|                                       | 195768      | Horizon ⚡    | DCR920F52        | 18                      | +9/2.0                   | 100-240@50-60     | 2.5mm x 5.5mm F 2                                      | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6'6"              | 0.9           | UL/CUL/TUV/CE    | 22.95   | 20.66   | 16.52   | 15.55   |
|                                       | 391770      | Mean Well ⚡  | ES18B12-P1JU     | 18                      | +12/1.5                  | 90-264@47-63      | 2.1mm x 5.5mm F 2                                      | Yes       | Black           | 3.1 x 2.1 x 1.3     | 6'6"              | 0.5           | UL/CSA/TUV/CE    | 20.65   | 18.95   | 16.41   | 16.29   |
|                                       | 673651      | Artesyn      | SSL20C-7612      | 20                      | +12/1.67                 | 100-240@50-60     | 2.5mm x 5.5mm F 2                                      | No        | Black           | 4.6 x 2.4 x 1.1     | 3'3" <sup>3</sup> | 0.4           | UL/CSA/VDE       | 17.95   | 16.49   | 14.59   | 11.49   |
| 391778                                | Mean Well ⚡ | ES18B24-P1JU | 18               | +24/0.75                | 90-264@47-63             | 2.1mm x 5.5mm F 2 | Yes  | Black     | 3.1 x 2.1 x 1.3 | 6'6"                | 0.5               | UL/CSA/TUV/CE | 20.65            | 18.95   | 16.41   | 16.29   |         |
| 196138                                | DVE         | DSA-0283A    | 23               | +5/1.1, +2/1.49 -5/0.43 | 100-240@47-63            | 5-pin DIN M       | No   | Black     | 4.9 x 2.7 x 1.5 | 6' <sup>3</sup>     | 0.8               | UL/CSA/TUV    | 16.95            | 15.25   | 12.19   | 9.15    |         |
| 25-27 Watt                            | 379939      | Mean Well ⚡  | ES25B09-P1JU     | 25                      | +9/2.78                  | 90-264@47-63      | 2.1mm x 5.5mm F 2                                      | Yes       | Black           | 3.1 x 2.1 x 1.3     | 6'6"              | 0.5           | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 380682      | Mean Well ⚡  | ES25B09-P1MU     | 25                      | +9/2.78                  | 90-264@47-63      | 2.5mm x 5.5mm F 2                                      | Yes       | Black           | 3.1 x 2.1 x 1.3     | 6'6"              | 0.5           | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 379787      | Mean Well ⚡  | P30B-2P2MU       | 26                      | +9/2.89                  | 90-264@47-63      | 2.5mm x 5.5mm F 2                                      | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6'6"              | 0.7           | UL/CSA/TUV/CE    | 23.69   | 21.17   | 19.14   | 18.18   |
|                                       | 379947      | Mean Well ⚡  | ES25B12-P1JU     | 25                      | +12/2.08                 | 90-264@47-63      | 2.1mm x 5.5mm F 2                                      | Yes       | Black           | 3.1 x 2.1 x 1.3     | 6'6"              | 0.5           | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 380702      | Mean Well ⚡  | ES25B12-P1MU     | 25                      | +12/2.08                 | 90-264@47-63      | 2.5mm x 5.5mm F 2                                      | Yes       | Black           | 3.1 x 2.1 x 1.3     | 6'6"              | 0.5           | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 377942      | Mean Well ⚡  | P30B-3P2JU       | 27                      | +12/2.25                 | 90-264@47-63      | 2.1mm x 5.5mm F 2                                      | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6'6"              | 0.7           | UL/CSA/TUV/CE    | 23.69   | 21.17   | 19.14   | 18.18   |
|                                       | 379795      | Mean Well ⚡  | P30B-3P2MU       | 27                      | +12/2.25                 | 90-264@47-63      | 2.5mm x 5.5mm F 2                                      | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6'6"              | 0.7           | UL/CSA/TUV/CE    | 23.69   | 21.17   | 19.14   | 18.18   |
|                                       | 379955      | Mean Well ⚡  | ES25B15-P1JU     | 25                      | +15/1.67                 | 90-264@47-63      | 2.1mm x 5.5mm F 2                                      | Yes       | Black           | 3.1 x 2.1 x 1.3     | 6'6"              | 0.5           | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 380711      | Mean Well ⚡  | ES25B15-P1MU     | 25                      | +15/1.67                 | 90-264@47-63      | 2.5mm x 5.5mm F 2                                      | Yes       | Black           | 3.1 x 2.1 x 1.3     | 6'6"              | 0.5           | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 377959      | Mean Well ⚡  | P30B-4P2JU       | 27                      | +15/1.8                  | 90-264@47-63      | 2.1mm x 5.5mm F 2                                      | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6'6"              | 0.7           | UL/CSA/TUV/CE    | 23.69   | 21.17   | 19.14   | 18.18   |
|                                       | 379656      | Mean Well ⚡  | P30B-4P2MU       | 27                      | +15/1.8                  | 90-264@47-63      | 2.5mm x 5.5mm F 2                                      | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6'6"              | 0.7           | UL/CSA/TUV/CE    | 23.69   | 21.17   | 19.14   | 18.18   |
|                                       | 379962      | Mean Well ⚡  | ES25B18-P1JU     | 25                      | +18/1.39                 | 90-264@47-63      | 2.1mm x 5.5mm F 2                                      | Yes       | Black           | 3.1 x 2.1 x 1.3     | 6'6"              | 0.5           | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 380729      | Mean Well ⚡  | ES25B18-P1MU     | 25                      | +18/1.39                 | 90-264@47-63      | 2.5mm x 5.5mm F 2                                      | Yes       | Black           | 3.1 x 2.1 x 1.3     | 6'6"              | 0.5           | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 379971      | Mean Well ⚡  | ES25B24-P1JU     | 25                      | +24/1.04                 | 90-264@47-63      | 2.1mm x 5.5mm F 2                                      | Yes       | Black           | 3.1 x 2.1 x 1.3     | 6'6"              | 0.5           | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 380762      | Mean Well ⚡  | ES25B24-P1MU     | 25                      | +24/1.04                 | 90-264@47-63      | 2.5mm x 5.5mm F 2                                      | Yes       | Black           | 3.1 x 2.1 x 1.3     | 6'6"              | 0.5           | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 221613      | Mean Well ⚡  | P30B-6P2JU       | 27                      | +24/1.1                  | 90-264@47-63      | 2.1mm x 5.5mm F 2                                      | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6'6"              | 0.8           | UL/CUL/TUV/CE    | 25.95   | 23.35   | 20.99   | 18.99   |
| 379989                                | Mean Well ⚡ | ES25B28-P1JU | 25               | +28/0.89                | 90-264@47-63             | 2.1mm x 5.5mm F 2 | Yes  | Black     | 3.1 x 2.1 x 1.3 | 6'6"                | 0.5               | UL/CSA/TUV/CE | 20.69            | 18.62   | 16.00   | 12.00   |         |
| 380780                                | Mean Well ⚡ | ES25B28-P1MU | 25               | +28/0.89                | 90-264@47-63             | 2.5mm x 5.5mm F 2 | Yes  | Black     | 3.1 x 2.1 x 1.3 | 6'6"                | 0.5               | UL/CSA/TUV/CE | 20.69            | 18.53   | 16.22   | 15.45   |         |
| 205911                                | Delta       | ADP-25HB     | 25               | +30/0.83                | 100-125@50-60            | 2.1mm x 5.5mm F 2 | No   | Black     | 3.5 x 2.4 x 1.2 | 6'7"                | 1.1               | UL/CUL        | 17.49            | 15.75   | 12.59   | 9.45    |         |
| 379997                                | Mean Well ⚡ | ES25B48-P1JU | 25               | +48/0.52                | 90-264@47-63             | 2.1mm x 5.5mm F 2 | Yes  | Black     | 3.1 x 2.1 x 1.3 | 6'6"                | 0.5               | UL/CSA/TUV/CE | 20.69            | 18.53   | 16.22   | 15.45   |         |
| 380809                                | Mean Well ⚡ | ES25B48-P1MU | 25               | +48/0.52                | 90-264@47-63             | 2.5mm x 5.5mm F 2 | Yes  | Black     | 3.1 x 2.1 x 1.3 | 6'6"                | 0.5               | UL/CSA/TUV/CE | 20.69            | 18.53   | 16.22   | 15.45   |         |
| 30-55W                                | 220441      | Horizon ⚡    | SL120300RT       | 36                      | +12/3.0                  | 100-240@50-60     | 2.5mm x 5.5mm F 2 <sup>†</sup>                         | Yes       | Black           | 4.3 x 2.0 x 1.2     | 6' <sup>3</sup>   | 0.6           | UL/CUL/TUV/CE    | 29.95   | 26.99   | 24.29   | 21.85   |
|                                       | 230499      | Philhong ⚡   | PSA60W-120       | 50                      | +12/4.2                  | 90-264@47-63      | 2.1mm x 5.5mm F 2                                      | No        | Black           | 4.0 x 2.5 x 1.3     | 6' <sup>3</sup>   | 0.5           | UL/CSA/TUV/CE    | 36.49   | 32.85   | 29.55   | 28.49   |
|                                       | 645271      | —            | SDA5524          | 55                      | +24/2.3                  | 120-240@50-60     | 2.5mm x 5.5mm F 2 <sup>†</sup>                         | Yes       | Black           | 5.1 x 2.4 x 1.4     | 7' <sup>3</sup>   | 0.5           | UL/CUL/TUV/CE    | 29.95   | 26.95   | 24.75   | 19.95   |

\* See accessory table-top power cord chart below when AC cord needed; refer to 1, 2 or 3 in "Cord (DC/AC)" column above for correct power cord  
 ▲ Brand and product number may vary except for ReliaPro, Mean Well, Philhong and GlobTek

<sup>†</sup> Right angle  
 Blue Part No. = Limited Quantity Available

## 3-Wire Table-Top Power Supplies on next page

## \* Accessory Power Input Cords for Table-Top Power Supplies



38041



38050



189587

For Additional Power Cords See Pages 248-249.

| Part No. | Ref. No. * | Description            | Color | AWG  | Certification | Cord Length | Wt. (lbs.) | Cord Type | 1      | 10     | 50     | 100    |
|----------|------------|------------------------|-------|------|---------------|-------------|------------|-----------|--------|--------|--------|--------|
| 38041    | 1          | 3-conductor power cord | Beige | 18/3 | UL/CSA        | 6'          | 0.4        | SVT       | \$3.49 | \$3.15 | \$2.51 | \$1.88 |
| 38050    | 2          | 3-conductor power cord | Black | 18/3 | UL/CSA        | 6'          | 0.4        | SVT       | 3.75   | 3.29   | 2.87   | 2.12   |
| 189587   | 3          | 2-conductor power cord | Black | 18/2 | UL/CSA        | 6'          | 0.3        | SPT       | 2.95   | 2.65   | 2.37   | 2.10   |

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RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

Color Code Legend  
**New** **Sale** **Lower\$** **QtySave**

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# AC-to-DC Regulated Switching Table-Top Power Supplies

Color Code Legend  
New Sale Lower\$ QtySave

We will change any power plug (pg 162) on any table-top power supply (100 pc. minimum) for a small additional charge.

See page 247 for International Power Cords



308700



159353



243012



206455

Quantity SAVE



DIN M

Polarity 1  $\oplus$   $\ominus$   $\ominus$  (center negative)

Female

Male

Polarity 2  $\ominus$   $\oplus$   $\oplus$  (center positive)

| Power                                 | Part Number | Brand ▲      | Product Number ▲ | Output          |                          | Input VAC@Hz      | Output Connector ID x OD/Polarity<br>F = female; M = male | Pwr. Ind. | Color           | Size (L" x W" x H") | Cords* (DC/AC) | Wt. (lbs.)           | Agency Approvals | Pricing |         |         |         |
|---------------------------------------|-------------|--------------|------------------|-----------------|--------------------------|-------------------|---|-----------|-----------------|---------------------|----------------|----------------------|------------------|---------|---------|---------|---------|
|                                       |             |              |                  | Pwr (W)         | Volts (VDC)/ Current (A) |                   |   |           |                 |                     |                |                      |                  | 1       | 10      | 50      | 100     |
| 3-Wire AC Input – Regulated Switching |             |              |                  |                 |                          |                   |   |           |                 |                     |                |                      |                  |         |         |         |         |
| 10-20 Watt                            | 221568      | Mean Well ⚡  | P40A-0P2JU       | 15              | +3.3/4.5                 | 90-264@47-63      | 2.1mm x 5.5mm F 2   | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6'/6'          | 0.8                  | UL/CUL/TUV/CE    | \$22.99 | \$20.69 | \$18.83 | \$16.97 |
|                                       | 309876      | Go Forward   | G112-USO520      | 10              | +5/2.0                   | 100-240@50-60     | 2.1mm x 5.5mm F 2   | No        | Black           | 2.6 x 1.9 x 1.3     | 6'/2           | 0.4                  | UL/CUL/TUV/CE    | 17.75   | 15.98   | 12.78   | 9.59    |
|                                       | 196218      | GlobTek ⚡    | GT210891005T3    | 10              | +5/2.0                   | 120-240@50-60     | 2.1mm x 5.5mm F 2   | No        | Black           | 3.4 x 1.9 x 1.3     | 6'/2           | 0.4                  | UL/CUL/TUV/CE    | 19.95   | 17.95   | 16.15   | 14.55   |
|                                       | 695244      | DVE          | DSA-0151D-05     | 12              | +5/2.4                   | 100-240@47-63     | 2.5mm x 5.5mm F 2   | No        | Black           | 3.9 x 2.0 x 1.4     | 6'/2           | 0.5                  | UL/CUL/TUV/CE    | 17.29   | 15.95   | 14.40   | 12.95   |
|                                       | 377845      | Mean Well ⚡  | ES18A05-P1JU     | 15              | +5/3.0                   | 90-264@47-63      | 2.1mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.65   | 18.95   | 16.41   | 16.29   |
|                                       | 379720      | Mean Well ⚡  | ES18A05-P1MU     | 15              | +5/3.0                   | 90-264@47-63      | 2.5mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.65   | 18.95   | 16.41   | 16.29   |
|                                       | 355506      | APS          | AD-740U-1050/LP  | 15              | +5/3.0                   | 100-240@50-60     | 2.5mm x 5.5mm F 2   | Yes       | Black           | 4.2 x 2.6 x 1.6     | 6'/1           | 0.8                  | UL/CUL/TUV/CE    | 17.29   | 15.56   | 12.45   | 9.34    |
|                                       | 379592      | Mean Well ⚡  | ES25A05-P1JU     | 20              | +5/4.0                   | 90-264@47-63      | 2.1mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 380471      | Mean Well ⚡  | ES25A05-P1MU     | 20              | +5/4.0                   | 90-264@47-63      | 2.5mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 213584      | Mean Well ⚡  | P30A-1P2JU       | 20              | +5/4.0                   | 100-240@50-60     | 2.1mm x 5.5mm F 2   | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6'/6'          | 0.7                  | UL/CUL/TUV/CE    | 23.69   | 21.32   | 17.06   | 16.04   |
|                                       | 377862      | Mean Well ⚡  | ES18A09-P1JU     | 18              | +9/2.0                   | 90-264@47-63      | 2.1mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/2           | 0.6                  | UL/CSA/TUV/CE    | 20.65   | 18.95   | 16.41   | 16.29   |
|                                       | 379736      | Mean Well ⚡  | ES18A09-P1MU     | 18              | +9/2.0                   | 90-264@47-63      | 2.5mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.65   | 18.95   | 16.41   | 16.29   |
|                                       | 303538      | Poltrans     | UP01411120⚡      | 12              | +12/1.0                  | 100-250@50-60     | 2.5mm x 5.5mm F 2   | No        | Black           | 4.1 x 2.5 x 1.3     | 4'/2           | 0.4                  | UL/CSA/TUV/CE    | 16.75   | 13.37   | 11.70   | 11.14   |
|                                       | 228988      | Phihong ⚡    | PSA18U-120       | 18              | +12/1.5                  | 90-264@47-63      | 2.1mm x 5.5mm F 2   | No        | Black           | 3.9 x 2.2 x 1.2     | 6'/2           | 0.5                  | UL/CUL/TUV/CE    | 22.95   | 20.65   | 18.59   | 17.53   |
|                                       | 376623      | Mean Well ⚡  | ES18A12-P1JU     | 18              | +12/1.5                  | 90-264@47-63      | 2.1mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.65   | 18.95   | 16.41   | 16.29   |
|                                       | 379702      | Mean Well ⚡  | ES18A12-P1MU     | 18              | +12/1.5                  | 90-264@47-63      | 2.5mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.65   | 18.95   | 16.41   | 16.29   |
|                                       | 1537432     | Eng Electric | EPA-201D-12      | 20              | +12/1.66                 | 100-240@50-60     | 2.1mm x 5.5mm F 2   | Yes       | Black           | 4.3 x 2.4 x 1.3     | 6'/2           | 0.2                  | UL/CUL/TUV/CE    | 16.95   | 15.25   | 13.49   | 11.49   |
|                                       | 377880      | Mean Well ⚡  | ES18A15-P1JU     | 18              | +15/1.2                  | 90-264@47-63      | 2.1mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.65   | 18.95   | 16.41   | 16.29   |
|                                       | 379744      | Mean Well ⚡  | ES18A15-P1MU     | 18              | +15/1.2                  | 90-264@47-63      | 2.5mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.65   | 18.95   | 16.41   | 16.29   |
| 303546                                | Poltrans    | UP01811180   | 18               | +18/1.0         | 100-250@50-60            | 2.1mm x 5.5mm F 2 | No  | Black     | 4.1 x 2.5 x 1.3 | 4'/2                | 0.4            | UL/CSA/TUV/CE        | 19.55            | 17.60   | 14.08   | 10.56   |         |
| 394232                                | Mean Well ⚡ | ES18A24-P1JU | 18               | +24/0.75        | 90-264@47-63             | 2.1mm x 5.5mm F 2 | Yes   | Black     | 3.7 x 2.1 x 1.4 | 6'/6'               | 0.6            | UL/CUL/TUV/CCC/CB/CE | 20.65            | 18.95   | 16.41   | 16.29   |         |
| 159353                                | Mean Well   | KA60AU       | 17               | +5/1.1, ±12/0.5 | 100-240@50-60            | 5-pin DIN M       | Yes   | Black     | 4.1 x 2.6 x 1.5 | 6'/5'               | 1.0            | UL/CSA/TUV           | 36.95            | 33.26   | 26.60   | 21.89   |         |
| 21-27 Watt                            | 213576      | Mean Well ⚡  | P40A-1P2JU       | 25              | +5/5.0                   | 100-240@50-60     | 2.1mm x 5.5mm F 2   | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6'/6'          | 0.7                  | UL/CUL/TUV/CE    | 29.95   | 26.96   | 21.56   | 16.97   |
|                                       | 379698      | Mean Well ⚡  | ES25A07-P1JU     | 22              | +7.5/2.93                | 90-264@47-63      | 2.1mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.69   | 18.62   | 14.90   | 11.53   |
|                                       | 380497      | Mean Well ⚡  | ES25A07-P1MU     | 22              | +7.5/2.93                | 90-264@47-63      | 2.5mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 377909      | Mean Well ⚡  | P30A-1-1P2JU     | 23              | +7.5/3.06                | 90-264@47-63      | 2.1mm x 5.5mm F 2   | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 23.69   | 21.80   | 20.76   | 19.71   |
|                                       | 379752      | Mean Well ⚡  | P30A-1-1P2MU     | 23              | +7.5/3.06                | 90-264@47-63      | 2.5mm x 5.5mm F 2   | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6'/6'          | 0.7                  | UL/CSA/TUV/CE    | 23.69   | 21.80   | 20.76   | 19.71   |
|                                       | 379728      | Mean Well ⚡  | ES25A09-P1JU     | 25              | +9/2.78                  | 90-264@47-63      | 2.1mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 380518      | Mean Well ⚡  | ES25A09-P1MU     | 25              | +9/2.78                  | 90-264@47-63      | 2.5mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 379779      | Mean Well ⚡  | ES25A12-P1JU     | 25              | +12/2.08                 | 90-264@47-63      | 2.1mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 380534      | Mean Well ⚡  | ES25A12-P1MU     | 25              | +12/2.08                 | 90-264@47-63      | 2.5mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 377896      | Mean Well ⚡  | P30A-3P2JU       | 27              | +12/2.25                 | 90-264@47-63      | 2.1mm x 5.5mm F 2   | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 23.69   | 21.80   | 20.76   | 19.71   |
|                                       | 379823      | Mean Well ⚡  | ES25A15-P1JU     | 25              | +15/1.66                 | 90-264@47-63      | 2.1mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.69   | 18.62   | 15.40   | 11.55   |
|                                       | 380542      | Mean Well ⚡  | ES25A15-P1MU     | 25              | +15/1.66                 | 90-264@47-63      | 2.5mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 243012      | Mean Well ⚡  | P30A-41P2JU      | 27              | +15/1.8                  | 90-264@47-63      | 2.1mm x 5.5mm F 2   | Yes       | Black           | 4.2 x 2.6 x 1.4     | 6'/6'          | 0.8                  | UL/CUL/TUV/CE    | 23.69   | 21.80   | 20.76   | 19.71   |
|                                       | 206455      | Ault         | SC100            | 25              | +16/1.56                 | 100-240@50-60     | 2.5mm x 5.5mm F 2   | No        | Black           | 4.2 x 2.6 x 1.5     | 6'/6'          | 1.2                  | UL/CUL/TUV/CE    | 14.95   | 13.46   | 10.76   | 8.07    |
|                                       | 379841      | Mean Well ⚡  | ES25A18-P1JU     | 25              | +18/1.38                 | 90-264@47-63      | 2.1mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 380551      | Mean Well ⚡  | ES25A18-P1MU     | 25              | +18/1.38                 | 90-264@47-63      | 2.5mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 379883      | Mean Well ⚡  | ES25A24-P1JU     | 25              | +24/1.04                 | 90-264@47-63      | 2.1mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 380577      | Mean Well ⚡  | ES25A24-P1MU     | 25              | +24/1.04                 | 90-264@47-63      | 2.5mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 221681      | Mean Well ⚡  | P30A-6P2JU       | 27              | +24/1.1                  | 90-264@47-63      | 2.1mm x 5.5mm F 2   | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6'/6'          | 0.8                  | UL/CSA/TUV/CE    | 26.95   | 24.29   | 21.85   | 19.65   |
|                                       | 379891      | Mean Well ⚡  | ES25A28-P1JU⚡    | 25              | +28/0.89                 | 90-264@47-63      | 2.1mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.69   | 18.62   | 15.50   | 11.53   |
|                                       | 380585      | Mean Well ⚡  | ES25A28-P1MU     | 25              | +28/0.89                 | 90-264@47-63      | 2.5mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 379903      | Mean Well ⚡  | ES25A48-P1JU     | 25              | +48/0.52                 | 90-264@47-63      | 2.1mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.69   | 18.62   | 15.64   | 11.73   |
|                                       | 380606      | Mean Well ⚡  | ES25A48-P1MU     | 25              | +48/0.52                 | 90-264@47-63      | 2.5mm x 5.5mm F 2   | Yes       | Black           | 3.7 x 2.1 x 1.4     | 6'/6'          | 0.6                  | UL/CSA/TUV/CE    | 20.69   | 18.53   | 16.22   | 15.45   |
|                                       | 215088      | Mean Well ⚡  | P30A-8P2JU       | 27              | +48/0.56                 | 100-240@50-60     | 2.1mm x 5.5mm F 2   | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6'/6'          | 0.7                  | UL/CSA/TUV/CE    | 21.89   | 19.89   | 18.09   | 16.59   |
|                                       | 196270      | Everglow ⚡   | PSU25A13         | 25              | +5/2.5, +12/1.0          | 100-240@47-63     | 4-pin mini DIN M  | No        | Black           | 4.2 x 2.6 x 1.4     | 6'/4'          | 1.2                  | UL/CUL/TUV/CE    | 27.95   | 25.19   | 22.65   | 20.39   |
|                                       | 190650      | Ault         | SW300            | 25              | +5/4, +12/1.0            | 100-250@50-60     | 5-pin DIN M   | No        | Black           | 5.9 x 3.4 x 2.1     | 6'/2           | 1.5                  | UL/CSA/TUV       | 9.95    | 8.96    | 8.06    | 7.25    |
|                                       | 190960      | Mean Well ⚡  | P25A13D-R1U      | 26              | +5/2.5, +12/0.8, -12/0.3 | 100-240@47-63     | 5-pin DIN M   | Yes       | Black           | 4.1 x 2.6 x 1.4     | 6'/6'          | 1.1                  | CUL/TUV/CE       | 32.95   | 29.69   | 26.69   | 24.05   |
| 221720                                | Mean Well ⚡ | P25A14E-R1BU | 25               | +5/2.5, ±15/0.3 | 90-264@47-63             | 5-pin DIN M       | Yes   | Black     | 4.3 x 2.6 x 1.4 | 6'/6'               | 0.8            | UL/CUL/TUV/CE        | 32.95            | 29.69   | 26.69   | 24.05   |         |

\* See accessory table-top power cord chart on page 233 when AC cord needed; refer to 1, 2 or 3 in "Cord (DC/AC)" column above for correct power cord

▲ Brand and product number may vary except for ReliaPro, Mean Well, Phihong and GlobTek Ⓢ Blue Part No. = Limited Quantity Available

3-Wire Table-Top Power Supplies continued on next page


RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

# AC-to-DC Regulated Switching Table-Top Power Supplies

See page 247 for International Power Cords


We will change any power plug (pg 162) on any table-top power supply (100 pc. minimum) for a small additional charge.



Polarity 1  (center negative)

Female

Male

Polarity 2  (center positive)



| Power   | Part Number | Brand ▲      | Product Number ▲ | Output          |                          | Input VAC@Hz  | Output Connector ID x OD/Polarity<br>F = female; M = male | Pwr. Ind. | Color           | Size (L" x W" x H") | Cords* (DC/AC) | Wt. (lbs.)    | Agency Approvals | Pricing |         |         |         |
|---|-------------|--------------|------------------|-----------------|--------------------------|---------------|---|-----------|-----------------|---------------------|----------------|---------------|------------------|---------|---------|---------|---------|
|   |             |              |                  | Pwr (W)         | Volts (VDC)/ Current (A) |               |   |           |                 |                     |                |               |                  | 1       | 10      | 50      | 100     |
|   |             |              |                  |                 |                          |               |   |           |                 |                     |                |               |                  |         |         |         |         |
| 3-Wire AC Input – Regulated Switching (Continued) |             |              |                  |                 |                          |               |   |           |                 |                     |                |               |                  |         |         |         |         |
| 30-40 Watt  | 320080      | GlobTek      | TR9CA6000LCP-Y   | 30              | +5/6.0                   | 100-240@50-60 | 2.5mm x 5.5mm F 2   | Yes       | Black           | 4.7 x 2.4 x 1.3     | 6' 2           | 0.7           | UL/CUL/TUV/CE    | \$24.69 | \$22.89 | \$20.59 | \$18.55 |
|   | 206528      | Mean Well ⚡  | P40A-1-1P25U     | 30              | +7.5/4.0                 | 100-240@50-60 | 2.1mm x 5.5mm F 2   | No        | Black           | 4.3 x 2.7 x 1.5     | 6' 6           | 1.5           | UL/CUL/TUV/CE    | 29.95   | 26.95   | 23.95   | 21.95   |
|   | 229008      | Phihong ⚡    | PSA31U-120       | 30              | +12/2.5                  | 90-264@47-63  | 2.1mm x 5.5mm F 2   | No        | Black           | 4.5 x 2.4 x 1.4     | 6' 2           | 0.5           | UL/CUL/TUV/CE    | 26.95   | 24.25   | 21.85   | 21.18   |
|   | 401041      | ReliaPro ⚡   | EA10362          | 36              | +12/3.0                  | 120-240@50-60 | 2.1mm x 5.5mm F 2   | Yes       | Black           | 3.9 x 1.8 x 1.2     | 6' 3           | 0.6           | UL/CUL/TUV/CE    | 23.69   | 21.17   | 19.14   | 18.19   |
|   | 695033      | —            | TG-3601-12V      | 36              | +12/3.0                  | 100-240@50-60 | 2.5mm x 5.5mm F 2   | Yes       | Black           | 4.3 x 2.4 x 1.2     | 4' 10 3        | 0.6           | UL/CUL/TUV/CE    | 18.95   | 17.10   | 15.39   | 13.75   |
|   | 155214      | Mean Well ⚡  | P40A-3P2JU       | 40              | +12/3.3                  | 100-240@50-60 | 2.1mm x 5.5mm F 2   | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6' 6           | 0.7           | UL/CUL/TUV       | 35.95   | 32.36   | 29.12   | 26.21   |
|   | 297693      | Mean Well ⚡  | P40A-3P2MU       | 40              | +12/3.3                  | 90-264@47-63  | 2.5mm x 5.5mm F 2   | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6' 6           | 0.7           | UL/CUL/VDE/CE    | 35.95   | 32.36   | 29.12   | 26.21   |
|   | 355064      | ReliaPro ⚡   | JR-TT-40-12      | 40              | +12/3.33                 | 90-264@47-63  | 2.1mm x 5.5mm F 2   | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6' 2           | 0.6           | UL/CUL/TUV/CE    | 29.39   | 23.51   | 20.58   | 19.52   |
|   | 229017      | Phihong ⚡    | PSA31U-150       | 30              | +15/2.0                  | 90-264@47-63  | 2.1mm x 5.5mm F 2   | No        | Black           | 4.5 x 2.4 x 1.4     | 6' 2           | 0.5           | UL/CUL/TUV/CE    | 26.95   | 24.25   | 22.12   | 21.90   |
|   | 221576      | Mean Well ⚡  | P40A-4P2JU       | 40              | +15/2.7                  | 90-264@47-63  | 2.1mm x 5.5mm F 2   | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6' 6           | 0.8           | UL/CUL/TUV/CE    | 33.95   | 30.56   | 27.50   | 24.75   |
|   | 230481      | Phihong ⚡    | PSA31U-180       | 30              | +18/1.6                  | 90-264@47-63  | 2.1mm x 5.5mm F 2   | No        | Black           | 3.9 x 2.2 x 1.2     | 6' 2           | 0.5           | UL/CUL/TUV/CE    | 26.95   | 24.25   | 21.85   | 20.75   |
|   | 229025      | Phihong ⚡    | PSA31U-240       | 30              | +24/1.25                 | 90-264@47-63  | 2.1mm x 5.5mm F 2   | No        | Black           | 4.5 x 2.4 x 1.4     | 6' 2           | 0.5           | UL/CUL/TUV/CE    | 26.95   | 24.25   | 21.85   | 20.66   |
|   | 181885      | Mean Well ⚡  | P40A-6P2JU       | 40              | +24/1.7                  | 100-240@50-60 | 2.1mm x 5.5mm F 2   | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6' 6           | 0.7           | UL/TUV/CE        | 35.95   | 32.36   | 29.12   | 26.21   |
|   | 297757      | Mean Well ⚡  | P40A-6P2MU       | 40              | +24/1.7                  | 90-264@47-63  | 2.5mm x 5.5mm F 2   | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6' 6           | 0.7           | UL/CUL/VDE/CE    | 35.95   | 32.36   | 29.12   | 26.21   |
|   | 229032      | Phihong ⚡    | PSA31U-480       | 30              | +48/0.63                 | 90-264@47-63  | 2.1mm x 5.5mm F 2   | No        | Black           | 4.5 x 2.4 x 1.6     | 6' 2           | 0.5           | UL/CUL/TUV/CE    | 26.95   | 24.26   | 23.09   | 21.91   |
|   | 221584      | Mean Well ⚡  | P40A-8P2JU       | 40              | +48/0.8                  | 90-264@47-63  | 2.1mm x 5.5mm F 2   | Yes       | Black           | 4.3 x 2.6 x 1.4     | 6' 6           | 0.8           | UL/CUL/TUV/CE    | 33.95   | 30.56   | 24.44   | 18.33   |
|   | 211191      | Westinghouse | FSA30P31         | 30              | +5/3, ±12/0.8            | 85-264@47-63  | 5-pin DIN M   | No        | Black           | 5.8 x 3.0 x 1.7     | 4' 2           | 1.1           | UL/CSA/TUV       | 25.95   | 23.35   | 18.68   | 14.01   |
|   | 404443      | AcroPower    | ASX30T-577/07    | 30              | +5/3, ±12/0.1            | 100-240@50-60 | 5-pin DIN M   | No        | Black           | 6.0 x 3.5 x 2.0     | 6' 6           | 2.0           | UL/CUL/CE        | 19.95   | 17.95   | 14.36   | 10.77   |
| 41-50 Watt  | 221487      | Mean Well ⚡  | SPU50-1U         | 50              | +5/10                    | 90-264@47-63  | 5-pin DIN M   | Yes       | Black           | 5.7 x 3.0 x 1.7     | 6' 6           | 2.0           | UL/CUL/TUV/CE    | 36.95   | 33.95   | 31.95   | 29.49   |
|   | 622547      | Samsung      | AD-4212L         | 42              | +12/3.5                  | 100-240@50/60 | 1.6mm x 4.0mm F 2   | Yes       | Black           | 4.5 x 2.1 x 1.2     | 6' 2           | 0.6           | UL/CUL/CE        | 21.95   | 19.75   | 15.80   | 11.85   |
|   | 622555      | Samsung      | AD-4212L-2.1     | 42              | +12/3.5                  | 100-240@50-60 | 2.1mm x 5.5mm F 2   | Yes       | Black           | 4.5 x 2.1 x 1.2     | 6' 2           | 0.6           | UL/CUL/CE        | 24.95   | 22.45   | 17.96   | 13.47   |
|   | 447099      | Potrans      | UP0482112D       | 48              | +12/4                    | 100-240@50-60 | 2.1mm x 5.5mm F 2   | Yes       | Black           | 4.6 x 2.5 x 1.4     | 6' 2           | 0.7           | UL/CUL/TUV       | 32.69   | 26.13   | 22.86   | 17.19   |
|   | 1537256     | Ault         | PW125RA2403F2    | 41              | +24/1.7                  | 100-250@50-60 | 2.5mm x 5.5mm F 2   | Yes       | Black           | 3.9 x 2.6 x 1.7     | 6' 2           | 0.7           | UL/CUL/TUV/CE    | 27.95   | 25.15   | 22.69   | 19.95   |
|   | 221702      | Mean Well ⚡  | P50A13D-R1BU     | 50              | +5/4.0, ±12/0.5          | 90-264@47-63  | 5-pin DIN M   | Yes       | Black           | 5.7 x 3.0 x 1.7     | 4' 6           | 1.5           | UL/CUL/TUV/CE    | 48.95   | 44.09   | 39.69   | 35.69   |
|   | 211107      | Fortron      | FSA55P31         | 45              | +5/5, ±12/3              | 85-264@50-60  | 5-pin DIN M   | Yes       | Black           | 7.0 x 3.8 x 2.2     | 4' 2           | 1.6           | UL/CSA/TUV       | 49.95   | 44.96   | 35.96   | 26.24   |
| 237367  | Mean Well ⚡ | P50A14E-R1BU | 42               | +5/3.5, ±15/1.2 | 100-240@47-63            | 5-pin DIN M   | Yes   | Black     | 5.8 x 3.0 x 1.7 | 4' 6                | 1.2            | UL/CUL/TUV/CE | 36.95            | 33.25   | 32.39   | 31.53   |         |
| 60-80 Watt  | 155231      | Mean Well ⚡  | SPU50-3U         | 60              | +12/5.0                  | 100-240@47-63 | 2.1mm x 5.5mm F 2   | Yes       | Black           | 5.7 x 3.0 x 1.7     | 6' 6           | 1.3           | UL/CSA/TUV       | 49.95   | 44.95   | 39.95   | 35.95   |
|   | 297722      | Mean Well ⚡  | SPU50-3P2MU      | 60              | +12/5.0                  | 90-264@47-63  | 2.5mm x 5.5mm F 2   | Yes       | Black           | 5.7 x 3.0 x 1.7     | 6' 6           | 1.3           | UL/CUL/TUV/CE    | 49.95   | 44.95   | 39.95   | 35.95   |
|   | 376607      | Mean Well ⚡  | P66A-3P2JU       | 66              | +12/5.5                  | 90-264@47-63  | 2.1mm x 5.5mm F 2   | Yes       | Black           | 5.8 x 3.0 x 1.7     | 6' 6           | 1.2           | UL/CSA/TUV/CE    | 34.95   | 31.92   | 27.93   | 26.59   |
|   | 379672      | Mean Well ⚡  | P66A-3P2MU       | 66              | +12/5.5                  | 90-264@47-63  | 2.5mm x 5.5mm F 2   | Yes       | Black           | 5.8 x 3.0 x 1.7     | 6' 6           | 1.2           | UL/CSA/TUV/CE    | 34.95   | 31.92   | 27.93   | 26.59   |
|   | 391743      | Mean Well ⚡  | P66A-4P2JU       | 66              | +15/4.4                  | 90-264@47-63  | 2.1mm x 5.5mm F 2   | Yes       | Black           | 5.8 x 3.0 x 1.7     | 6' 6           | 1.2           | UL/CSA/TUV/CE    | 34.95   | 31.92   | 27.93   | 26.59   |
|   | 221429      | Mean Well ⚡  | U65S105-P2JU     | 80              | +12/6.7                  | 95-264@47-63  | 2.1mm x 5.5mm F 2   | Yes       | Black           | 6.6 x 3.1 x 1.8     | 6' 6           | 2.0           | UL/CUL/TUV/CE    | 64.95   | 58.46   | 52.61   | 43.84   |
|   | 221437      | Mean Well ⚡  | U65S106-P2JU     | 80              | +15/5.33                 | 95-264@47-63  | 2.1mm x 5.5mm F 2   | Yes       | Black           | 6.6 x 3.1 x 1.8     | 6' 6           | 2.0           | UL/CUL/TUV/CE    | 64.95   | 55.29   | 49.95   | 47.49   |
|   | 243046      | Mean Well ⚡  | P66A-5P2JU       | 66              | +18/3.66                 | 90-264@47-63  | 2.1mm x 5.5mm F 2   | Yes       | Black           | 5.8 x 3.0 x 1.7     | 6' 6           | 1.2           | UL/CUL/TUV/CE    | 38.49   | 34.91   | 32.21   | 29.55   |
|   | 221445      | Mean Well ⚡  | U65S107-P2JU     | 80              | +18/4.4                  | 95-264@47-63  | 2.1mm x 5.5mm F 2   | Yes       | Black           | 6.6 x 3.1 x 1.8     | 6' 6           | 2.0           | UL/CUL/TUV/CE    | 64.95   | 55.29   | 49.95   | 47.49   |
|   | 161606      | Mean Well ⚡  | SPU50-6U         | 60              | +24/2.5                  | 100-240@47-63 | 2.1mm x 5.5mm F 2   | Yes       | Black           | 5.6 x 2.9 x 1.6     | 1' 9 6         | 1.3           | UL/CSA/TUV       | 44.95   | 39.95   | 35.95   | 32.95   |
|   | 297634      | Mean Well ⚡  | SPU50-6P2MU      | 60              | +24/2.5                  | 95-264@47-63  | 2.5mm x 5.5mm F 2   | Yes       | Black           | 5.7 x 3.0 x 1.7     | 6' 6           | 1.3           | UL/CUL/TUV/CE    | 44.95   | 39.95   | 35.95   | 32.95   |
|   | 1537125     | EDAC ⚡       | EA1050B-240      | 60              | +24/2.5                  | 100-240@47-63 | 2.5mm x 5.5mm F 2   | Yes       | Black           | 4.8 x 2.4 x 1.4     | 6' 2           | 1.8           | UL/CUL/TUV/CE    | 34.95   | 31.45   | 28.30   | 25.45   |
|   | 355056      | ReliaPro ⚡   | JR-TT-66-24      | 66              | +24/2.75                 | 90-264@50-60  | 2.1mm x 5.5mm F 2   | Yes       | Black           | 5.8 x 3.0 x 1.7     | 6' 2           | 1.2           | UL/CUL/TUV/CE    | 37.85   | 35.96   | 34.16   | 32.45   |
|   | 221453      | Mean Well ⚡  | U65S108-P2JU     | 80              | +24/3.3                  | 95-264@47-63  | 2.1mm x 5.5mm F 2   | Yes       | Black           | 6.6 x 3.1 x 1.8     | 6' 6           | 2.0           | UL/CUL/TUV/CE    | 64.95   | 55.29   | 49.95   | 47.49   |
|   | 376615      | Mean Well ⚡  | P66A-8P2JU       | 66              | +48/1.37                 | 90-264@47-63  | 2.1mm x 5.5mm F 2   | Yes       | Black           | 5.8 x 3.0 x 1.7     | 6' 6           | 1.2           | UL/CSA/TUV/CE    | 34.95   | 31.92   | 27.93   | 26.59   |
|   | 379681      | Mean Well ⚡  | P66A-8P2MU       | 66              | +48/1.37                 | 90-264@47-63  | 2.5mm x 5.5mm F 2   | Yes       | Black           | 5.8 x 3.0 x 1.7     | 6' 6           | 1.2           | UL/CSA/TUV/CE    | 34.95   | 31.92   | 27.93   | 26.59   |
|   | 172065      | Mean Well ⚡  | SPU50-9U         | 60              | +48/1.25                 | 100-240@47-63 | 2.1mm x 5.5mm F 2   | Yes       | Black           | 5.6 x 2.9 x 1.7     | 6' 6           | 1.3           | UL/CSA/TUV       | 44.95   | 40.49   | 36.45   | 32.79   |
|   | 221462      | Mean Well ⚡  | U65S111-P2JU     | 80              | +48/1.7                  | 95-264@47-63  | 2.1mm x 5.5mm F 2   | Yes       | Black           | 6.6 x 3.1 x 1.8     | 6' 6           | 2.0           | UL/CUL/TUV/CE    | 64.95   | 55.29   | 49.95   | 47.49   |

\* See accessory table-top power cord chart on page 233 when AC cord needed; refer to 1, 2 or 3 in "Cord (DC/AC)" column above for correct power cord

▲ Brand and product number may vary except for ReliaPro, Mean Well, Phihong and GlobTek

Ⓢ Blue Part No. = Limited Quantity Available

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235

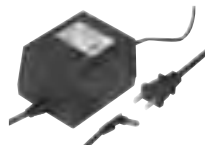
# AC-to-DC Regulated & Unregulated Table-Top Power Supplies

Color Code Legend  
New Sale Lower\$ QtySave

We will change any power plug (pg 162) on any table-top power supply (100 pc. minimum) for a small additional charge.

## AC-to-DC Regulated Linear Table-Top Power Supplies

See page 247 for International Power Cords



211060



174844



664261



689661



DIN M

Polarity 1  $\oplus \ominus \ominus$  (center negative)



Female



Male

Polarity 2  $\ominus \oplus \oplus$  (center positive)

| Power                              | Part Number | Brand ▲      | Product Number ▲ | Output  |                                    | Input VAC@Hz | Output Connector ID x OD/Polarity<br>F = female; M = male | Pwr. Ind. | Color | Size (L" x W" x H") | Cords (DC/AC) | Wt. (lbs.) | Agency Approvals | Pricing |         |         |        |
|------------------------------------|-------------|--------------|------------------|---------|------------------------------------|--------------|---|-----------|-------|---------------------|---------------|------------|------------------|---------|---------|---------|--------|
|                                    |             |              |                  | Pwr (W) | Volts (VDC)/<br>Current (A)        |              |   |           |       |                     |               |            |                  | 1       | 10      | 50      | 100    |
| 2-Wire AC Input – Regulated Linear |             |              |                  |         |                                    |              |   |           |       |                     |               |            |                  |         |         |         |        |
| 5-25                               | 211060      | Pacific Data | DV-51AAT         | 5       | +5/1                               | 120@60       | 2.1mm x 5.5mm rt angle F 2                                | No        | Black | 3.4 x 2.7 x 2.2     | 6'6'6"        | 1.7        | UL/CSA           | \$11.95 | \$10.76 | \$8.85  | \$6.45 |
|                                    | 174844      | Jameco 🟢     | DCR2410F12       | 24      | +24/1                              | 120@60       | 2.1mm x 5.5mm F 2   | No        | Black | 4.4 x 3.0 x 2.5     | 6'6'          | 2.6        | —                | 18.65   | 16.78   | 13.42   | 10.07  |
| 3-Wire AC Input – Regulated Linear |             |              |                  |         |                                    |              |   |           |       |                     |               |            |                  |         |         |         |        |
| 3-55                               | 664261      | Intermec     | 062035           | 3.75    | +5/0.75                            | 120@60       | 4-pin DIN M   | No        | Black | 4.4 x 2.5 x 2.0     | 6'6'          | 1.6        | UL/CSA           | \$14.95 | \$13.49 | \$10.76 | \$8.07 |
|                                    | 689661      | Regal        | R1JG-5500        | 30      | +5/1; -5/0.5                       | 120@60       | 5-pin DIN M   | No        | Black | 5.1 x 3.6 x 2.8     | 6'6'          | 2.7        | UL               | 21.95   | 19.95   | 17.49   | 14.95  |
|                                    | 689653      | Regal        | RJM-551228       | 55      | +5/0.9; -5/0.2; +12/0.62; -28/0.16 | 120@60       | 6-pin DIN M   | No        | Black | 5.1 x 3.6 x 2.8     | 6'6'          | 1.3        | CUL              | 24.95   | 22.49   | 19.95   | 16.49  |

▲ Brand and product number may vary except for ReliaPro, Mean Well, Phihong and GlobTek

## AC-to-DC Unregulated Table-Top Power Supplies

See page 247 for International Power Cords



Stripped



243109



354941



143714



143731

Quantity SAVE

Polarity 1  $\oplus \ominus \ominus$  (center negative)



Female



Male

Polarity 2  $\ominus \oplus \oplus$  (center positive)

| Power                         | Part Number | Brand ▲  | Product Number ▲ | Output    |                         | Input VAC@Hz | Output Connector ID x OD/Polarity<br>F = female; M = male | Pwr. Ind. | Color | Size (L" x W" x H") | Cords (DC/AC) | Wt. (lbs.) | Agency Approvals | Pricing |         |        |        |
|-------------------------------|-------------|----------|------------------|-----------|-------------------------|--------------|---|-----------|-------|---------------------|---------------|------------|------------------|---------|---------|--------|--------|
|                               |             |          |                  | Power (W) | Volts (VDC)/Current (A) |              |   |           |       |                     |               |            |                  | 1       | 10      | 50     | 100    |
| 2-Wire AC Input – Unregulated |             |          |                  |           |                         |              |   |           |       |                     |               |            |                  |         |         |        |        |
| 9-30 Watts                    | 190051      | APS      | APS48EA114       | 10        | +7/1.5                  | 120@60       | 2.5mm x 5.5mm F 2   | No        | Black | 3.4 x 2.3 x 1.9     | 6'6"          | 1.9        | UL/CUL           | \$9.95  | \$8.99  | \$7.19 | \$5.39 |
|                               | 243109      | Regal    | JK-91001-N       | 9         | +9/1.0                  | 120@60       | Stripped & Tinned   | No        | Black | 3.3 x 2.2 x 1.9     | 6'6"          | 1.2        | UL/CSA           | 13.95   | 12.56   | 10.04  | 7.53   |
|                               | 354941      | Terayon✔ | AD-121ADT        | 12        | +12/1.0                 | 120@60       | 2.1mm x 5.5mm F 2   | No        | Black | 3.2 x 2.3 x 1.9     | 6'6"          | 1.4        | UL/CUL           | 12.95   | 11.49   | 8.75   | 6.09   |
|                               | 136565      | Jameco   | DDC1210P         | 12        | +12/1.0                 | 120@60       | Stripped & Tinned   | No        | Black | 3.2 x 2.2 x 1.9     | 6'6"          | 1.2        | —                | 15.35   | 13.82   | 11.05  | 8.29   |
|                               | 140880      | Jameco   | DC1215ST         | 18        | +12/1.5                 | 120@60       | Stripped & Tinned   | No        | Black | 3.1 x 2.1 x 1.9     | 6'6"          | 1.5        | UL               | 14.25   | 12.82   | 11.54  | 10.39  |
|                               | 143714      | —⊕       | DC1220F1         | 24        | +12/2.0                 | 120@60       | 2.1mm x 5.5mm F 2   | No        | Black | 3.8 x 2.8 x 2.3     | 6'6"          | 2.2        | CUL-No UL        | 16.45   | 14.80   | 13.32  | 11.99  |
|                               | 143722      | Jameco⊕  | DC1220F5         | 24        | +12/2.0                 | 120@60       | 2.5mm x 5.5mm F 2   | No        | Black | 3.8 x 2.8 x 2.3     | 6'6"          | 2.2        | UL/CUL           | 14.25   | 12.82   | 11.61  | 10.44  |
|                               | 143731      | —⊕       | DC1220M3         | 24        | +12/2.0                 | 120@60       | 3.5mm M 2   | No        | Black | 3.8 x 2.8 x 2.3     | 6'6"          | 1.9        | CUL-No UL        | 14.25   | 12.64   | 10.40  | 9.44   |
|                               | 139096      | Jameco   | DC2412F1         | 29        | +24/1.2                 | 120@60       | 2.1mm x 5.5mm F 2   | No        | Black | 4.4 x 3.1 x 2.6     | 6'6"          | 2.5        | —                | 16.45   | 14.80   | 13.32  | 11.99  |
| 3-Wire AC Input – Unregulated |             |          |                  |           |                         |              |   |           |       |                     |               |            |                  |         |         |        |        |
| 15-25                         | 157956      | Everglow | EFU120150        | 18        | +12/1.5                 | 120@60       | 2.5mm x 5.5mm F 2   | No        | Black | 3.4 x 2.7 x 2.2     | 6'6"          | 2.0        | UL               | \$12.05 | \$10.85 | \$8.68 | \$6.51 |
|                               | 196306      | —        | A51813D          | 23        | +18/1.3                 | 120@60       | 2.5mm x 5.5mm F 2   | No        | Black | 3.6 x 2.4 x 2.0     | 6'6"          | 1.8        | UL/CSA           | 12.95   | 11.69   | 9.34   | 7.01   |

▲ Brand and product number may vary except for ReliaPro, Mean Well, Phihong and GlobTek

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RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. This product has a RoHS equivalent, manufacturer may vary.



## Compact DC Regulated Switching Power Adapter with Detachable Plugs

This state-of-the-art switching power adapter offers some major advantages such as stabilized outputs, short-circuit and overload protection, compact design, and low idle consumption versus typical wall adapters.

- Plugs (mm): Male: 2.5, 3.5; Female: 1.0 x 3.0, 1.3 x 3.5, 1.7 x 4.0, 2.1 x 5.0, 1.5 x 5.5 and 2.5 x 5.5
- Size: 2.9"H x 1.2"W x 1.9"D
- Output voltages: 3/4.5/6/7.5/9/12 VDC @ 800mA (reg.) with 1.5A max. output

| Part No. | Input Voltage | Power Output | Efficiency | Wt. (lbs.) | Price   |
|----------|---------------|--------------|------------|------------|---------|
| 239565   | 100-240VAC    | 10W          | 80%        | 0.2        | \$19.95 |

## 13W Compact Switching Power Supply

- Input voltage: 110-240VAC @ 50/60Hz
- Selectable outputs: 3VDC, 4.5VDC, 5VDC, 6VDC, 6.5VDC, 7VDC
- Power LED indicator
- Output current: 1.9A (2.5A max.)
- Output connectors: 2.5mm x 5.5mm right angle, 2.1mm x 5.5mm right angle, 1mm x 5mm, 1.1mm x 3.8mm, 1.4mm x 3.5mm, & 0.75mm x 2.4mm

| Part No. | Product No. | Size (H x W x D)   | Price   |
|----------|-------------|--------------------|---------|
| 1537539  | PSSM10VU    | 3.2" x 1.2" x 2.2" | \$32.95 |

## 24-Watt Switching Power Supply

- Input voltage: 100-240VAC @ 50-60Hz
- Low electromagnetic interference
- Interchangeable AC input plugs for USA/UK/Europe/Taiwan/China
- Output current: 2A
- Selectable outputs: 3VDC, 4.5VDC, 6VDC, 7.5VDC, 9VDC, 12VDC
- Output connectors: 2.5mm & 3.5mm male, 1mm x 3mm, 2.1mm x 5mm, 2.5mm x 5mm, 1.35mm x 3.5mm x & 1.7mm x 4mm

| Part No. | Product No. | Size (H x W x D)   | Price   |
|----------|-------------|--------------------|---------|
| 1537491  | PSSMV3      | 4.7" x 3.3" x 2.5" | \$39.95 |

## 36-Watt AC-to-AC Table-Top Power Supply

- Input voltage: 120VAC @ 60Hz
- Output voltage: 12VAC @ 3A
- Input connector: 6' long/2-prong AC plug
- Output connector: 6' long/2.1mm x 5.5mm female

| Part No. | Product No. | Size (L x W x H)   | 1       | 10      | 50     |
|----------|-------------|--------------------|---------|---------|--------|
| 455611   | D571203000  | 3.6" x 2.6" x 2.3" | \$11.95 | \$10.76 | \$9.68 |

# AC-to-DC Table-Top Power Supplies

## Switching Table-Top Power Supplies

- Short-circuit/overload protection
- Stabilized outputs, low ripple & interference
- High efficiency, low energy consumption
- Input voltage: 100-240VAC @ 50/60Hz
- LED power indicator

Includes: power cord

**1537504: 28W**

- Output voltage: 5VDC, 6VDC, 7.5VDC, 9VDC, 12VDC, 15VDC
- Output current: 3.6A
- Output connectors: 2.5mm & 3.5mm male, 1mm x 3mm, 2.1mm x 5mm, 2.5mm x 5mm, 1.7mm x 4mm, 1.5mm x 5.5mm

**1537521: 38W**

- Output voltage: 5VDC to 24VDC in 1V increments
- Output current: 1.5A to 4A
- Output connectors: 2.5mm & 3.5mm male, 1mm x 3mm, 1.35mm x 3.5mm, 1.5mm x 5mm, 1.7mm x 4mm, 2.1mm x 5mm, 2.5mm x 5mm

**1537512: 70W**

- Output voltage: 15VDC/16VDC/18VDC/19VDC/20VDC @ 3.5A; 22VDC/24VDC @ 2.9A
- Output connectors: 2.1mm x 5.5mm right angle, 2.5mm x 5.5mm right angle, 1.64mm x 4.78mm, 2.99mm x 6.28mm, 6.5mm x 14mm

| Part No. | Product No. | Size (L x W x H)   | Price   |
|----------|-------------|--------------------|---------|
| 1537504  | PSSM4VU     | 3.8" x 2.2" x 1.2" | \$55.95 |
| 1537521  | PSSM6VU     | 3.5" x 1.8" x 1.2" | 49.95   |
| 1537512  | PSSM7VU     | 5.5" x 3.2" x 1.7" | 95.95   |



## Universal 60-Watt Table-Top Power Supply

RoHS and CEC Compliant

- Input voltage: 90-264VAC @ 40-50Hz (2-wire input)
- Short-circuit, overcurrent, overvoltage protection
- Input power saving: 0.75W max. for 240VAC @ no load
- Efficiency: 80% typical
- Output voltage: 24VDC @ 2.5A
- 2.1mm x 5.5mm female center positive
- UL/CUL/TUV/CE approved

| Part No. | Product No.  | Size (L x W x H)   | 1       | 10      | 50      |
|----------|--------------|--------------------|---------|---------|---------|
| 229843   | PSC60W-240-R | 5.1" x 2.4" x 1.3" | \$36.49 | \$32.85 | \$29.55 |

We're committed to providing you with the best service in the industry.

# Medical Table-Top & Wall Switching AC-to-DC Power Supplies

## GlobTek® AC-to-DC Medical Table-Top Regulated Switching Power Supplies

- Input voltage: 90-264VAC @ 47-63Hz
- Leakage current: 0.1mA maximum
- Isolation voltage: 4,000VAC
- Regulation (line & load):  $\pm 5\%$
- 3-wire AC input
- 2.5mm x 5.5mm female center positive
- Cord lengths: DC: 6'; AC: use P/N 115078, pg 248
- UL/CUL/TUV/CE approved for medical applications
- Ripple and noise: 1% or 100mV, whichever is smaller
- Size: 2.9"L x 2.0"W x 1.6"H



Lower \$\$\$

| Part Number | Product Number | Power (W) | Output Volts (VDC)/Current (A) | Pricing |         |         |         |
|-------------|----------------|-----------|--------------------------------|---------|---------|---------|---------|
|             |                |           |                                | 1       | 10      | 50      | 100     |
| 230682      | TR9CE1250CP    | 15.6      | +12/1.3                        | \$32.95 | \$29.65 | \$26.69 | \$23.99 |
| 230691      | TR9CG1200CP    | 18.0      | +15/1.2                        | 32.95   | 29.66   | 23.73   | 22.17   |
| 230739      | TR9CA6000LCP   | 30.0      | +5/6.0                         | 46.95   | 42.26   | 33.80   | 32.08   |
| 230763      | TR9CE4000LCP   | 49.2      | +12/4.0                        | 52.95   | 47.65   | 42.89   | 38.59   |
| 230772      | TR9CG333LCP    | 49.5      | +15/3.3                        | 46.95   | 42.26   | 37.17   | 33.55   |
| 230797      | TR9CI2100LCP   | 50.4      | +24/2.1                        | 47.55   | 35.79   | 32.21   | 31.64   |

## GlobTek® AC-to-DC Medical Regulated Switching Wall Adapters

- Input voltage: 100-240VAC @ 47-63Hz
- 3-prong input plug
- Leakage current: 0.1mA maximum
- Isolation voltage: 4,000VAC
- Regulation (line & load):  $\pm 5\%$
- Ripple and noise: 1% or 100mV, whichever is smaller
- 2.5mm x 5.5mm female center positive
- Output cord length: 6'
- Size: 2.9"H x 1.9"W x 1.6"D
- Agency approval: UL/CUL/TUV/CE approved for medical applications



SALE

| Part Number | Product Number | Power (W) | Output Volts (VDC)/Current (A) | Pricing |         |         |         |
|-------------|----------------|-----------|--------------------------------|---------|---------|---------|---------|
|             |                |           |                                | 1       | 10      | 50      | 100     |
| 230842      | WR92E1250LCP   | 15.6      | +12 @ 1.3                      | \$30.95 | \$27.86 | \$25.07 | \$22.56 |
| 230877      | WR92I750LCP    | 16.8      | +24 @ 0.75                     | 25.45   | 22.91   | 20.62   | 18.56   |

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# AC-to-DC Regulated Switching Wall Adapters

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |

JAMECO ReliaPro

## "Slim Line" Regulated Switching Wall Adapters

Compact in size and lightweight, they are the perfect power solution in all those applications where space is critical. And their high efficiency satisfies requirements for minimizing power losses. You no longer have to deal with traditional wall adapters that block unused outlets in wall plates and power strips/surge protectors.

- 2-wire AC input
- Input voltage: 100 – 240VAC @ 47-63Hz
- Output cord length: 6'
- Output connector: 2.1mm x 5.5mm F2 (center positive)
- Color: black
- One-year warranty



We'll Brand the Adapters  
With Your Company Name  
Call 1-800-831-4242 for Details



| Part Number | Cross Ref. Number | Output Rating |            | Size (H"xW"xD") | Wt. (lbs.) | Pricing |         |         |        |
|-------------|-------------------|---------------|------------|-----------------|------------|---------|---------|---------|--------|
|             |                   | Volt (VDC)    | Curr. (mA) |                 |            | 1       | 10      | 50      | 100    |
| 251563      | S08AA033150       | 3.3           | 1500       | 2.5x1.1x1.7     | 0.2        | \$12.05 | \$10.93 | \$10.09 | \$9.74 |
| 251598      | S15AA033250       | 3.3           | 2500       | 2.9x1.3x2.2     | 0.3        | 12.65   | 11.47   | 10.59   | 10.22  |
| 252701      | S08AB050050       | 5.0           | 500        | 2.5x1.1x1.7     | 0.2        | 11.55   | 10.47   | 9.67    | 9.34   |
| 252719      | S08AB050100       | 5.0           | 1000       | 2.5x1.1x1.7     | 0.2        | 12.05   | 10.93   | 10.09   | 9.74   |
| 252727      | S08AB050150       | 5.0           | 1500       | 2.5x1.1x1.7     | 0.2        | 12.65   | 11.47   | 10.59   | 10.21  |
| 252735      | S15AB050250       | 5.0           | 2500       | 2.9x1.3x2.2     | 0.3        | 13.15   | 11.94   | 10.99   | 10.60  |
| 252752      | S08AD090050       | 9.0           | 500        | 2.5x1.1x1.7     | 0.2        | 12.05   | 10.94   | 10.09   | 9.74   |
| 252770      | S08AD090090       | 9.0           | 800        | 2.5x1.1x1.7     | 0.2        | 12.65   | 11.47   | 10.59   | 10.22  |
| 252778      | S15AD090120       | 9.0           | 1200       | 2.9x1.3x2.2     | 0.3        | 13.15   | 11.94   | 10.99   | 10.60  |
| 252786      | S15AS090170       | 9.0           | 1500       | 2.9x1.3x2.2     | 0.3        | 13.75   | 12.47   | 11.52   | 11.11  |
| 252794      | S08AE120025       | 12.0          | 250        | 2.5x1.1x1.7     | 0.2        | 11.55   | 10.47   | 9.67    | 9.33   |

| Part Number | Cross Ref. Number | Output Rating |            | Size (H"xW"xD") | Wt. (lbs.) | Pricing |         |         |        |
|-------------|-------------------|---------------|------------|-----------------|------------|---------|---------|---------|--------|
|             |                   | Volt (VDC)    | Curr. (mA) |                 |            | 1       | 10      | 50      | 100    |
| 252806      | S08AE120050       | 12.0          | 500        | 2.5x1.1x1.7     | 0.2        | \$12.05 | \$10.93 | \$10.09 | \$9.74 |
| 252815      | S08AE120070       | 12.0          | 600        | 2.5x1.1x1.7     | 0.2        | 12.65   | 11.47   | 10.59   | 10.22  |
| 252823      | S15AE120100       | 12.0          | 1000       | 2.9x1.3x2.2     | 0.3        | 13.15   | 11.94   | 10.99   | 10.60  |
| 252832      | S15AE120140       | 12.0          | 1250       | 2.9x1.3x2.2     | 0.3        | 14.25   | 12.94   | 11.94   | 11.52  |
| 254756      | S15AF150080       | 15.0          | 800        | 2.9x1.3x2.2     | 0.2        | 13.15   | 11.94   | 10.99   | 10.60  |
| 252903      | S15AF150120       | 15.0          | 1000       | 2.9x1.3x2.2     | 0.3        | 14.25   | 12.94   | 11.94   | 11.52  |
| 252849      | S08AH240013       | 24.0          | 130        | 2.5x1.1x1.7     | 0.2        | 11.55   | 10.40   | 8.32    | 6.24   |
| 252857      | S08AH240025       | 24.0          | 250        | 2.5x1.1x1.7     | 0.2        | 12.05   | 10.85   | 8.68    | 6.51   |
| 252865      | S15AH240050       | 24.0          | 500        | 2.9x1.3x2.2     | 0.3        | 13.15   | 11.84   | 9.47    | 7.10   |
| 252874      | S15AH240063       | 24.0          | 630        | 2.9x1.3x2.2     | 0.3        | 13.75   | 12.47   | 11.94   | 11.52  |

Blue Part No. = Limited Quantity Available



## Energy Star/European Compliant Interchangeable-Plug Wall Adapters

Meets US and European Energy Star compliance.  
Approved for European high-efficiency power applications.

- Field changeable AC plugs (sold separately, see below)
- Regulated output
- Power-On LED
- Double insulated
- Class B EMI
- Input voltage: 90-264VAC @ 47-63Hz
- Energy Star and ECOC compliant
- Output connector: 2.1mm x 5.5mm female center positive

Wall Adapters (Plug clip required, see below)

- Applications: wireless communications, portable equipment, digital camera, peripherals, networking



Shown with plug clip not included



Shown with plug clip included

| Part No. | Product No. | Power (W) | Output Volt. (VDC) | Current (A) | Ripple (mVp-p) | Line Regulation | Load Regulation | Efficiency (%) | Dimensions (L" x W" x H") | Pricing |         |         |         |
|----------|-------------|-----------|--------------------|-------------|----------------|-----------------|-----------------|----------------|---------------------------|---------|---------|---------|---------|
|          |             |           |                    |             |                |                 |                 |                |                           | 1       | 5       | 25      | 100     |
| 228743   | PSA05R-050  | 5         | 5                  | 1.0         | 50             | ±5%             | ±5%             | 60             | 2.8 x 1.8 x 1.2           | \$13.05 | \$11.85 | \$11.35 | \$11.07 |
| 228770   | PSA05R-120  | 5         | 12                 | 0.42        | 120            | ±5%             | ±5%             | 60             | 2.8 x 1.8 x 1.2           | 13.45   | 12.22   | 11.65   | 11.07   |
| 662864   | PSM11R-050  | 10        | 5                  | 2.0         | 100            | ±5%             | ±5%             | 65 - 70        | 2.8 x 1.8 x 1.2           | 14.69   | 13.78   | 13.25   | 12.70   |
| 662872   | PMS11R-090  | 10        | 9                  | 1.12        | 100            | ±5%             | ±5%             | 65 - 70        | 2.8 x 1.8 x 1.2           | 14.29   | 13.49   | 13.11   | 12.70   |
| 662881   | PSM11R-120  | 10        | 12                 | 0.84        | 120            | ±5%             | ±5%             | 65 - 70        | 2.8 x 1.8 x 1.2           | 14.29   | 13.44   | 13.11   | 12.70   |
| 662899   | PSA15R-050P | 15        | 5                  | 3.0         | 50             | ±5%             | ±5%             | 70 - 85        | 2.8 x 2.0 x 1.3           | 18.29   | 17.05   | 15.92   | 15.89   |
| 662910   | PSA15R-120P | 15        | 12                 | 1.25        | 120            | ±5%             | ±5%             | 70 - 85        | 2.8 x 2.0 x 1.3           | 18.29   | 17.05   | 15.92   | 15.89   |
| 663728   | PSA15R-480P | 15        | 48                 | 0.31        | 480            | ±5%             | ±5%             | 70 - 85        | 2.8 x 2.0 x 1.3           | 18.29   | 17.05   | 15.92   | 15.89   |

Plug Clip Kit (sold separately, required for above adapters)



| Part No. | Product No. | Description            | 1      | 10     | 50     | 100    |
|----------|-------------|------------------------|--------|--------|--------|--------|
| 229181   | RPKIT       | Kit w/ RPA/RPE/RPK/RPS | \$2.85 | \$2.58 | \$2.50 | \$2.42 |



## 2.5 Watt USB Power Adapter with Interchangeable Plug

- USB socket
- Efficiency: 55% (typical)
- Voltage input range: 90-264VAC @ 47-63Hz
- Voltage output: 5VDC @ 0.5A
- Leakage current: 0.20µA max.
- UL/CUL/TUV/CE approved
- ECOC compliant and RoHS compliant
- Size: 2.97"L x 1.81"W x 1.25"H



| Part No. | Product No. | 1       | 5       | 25      | 100     |
|----------|-------------|---------|---------|---------|---------|
| 662805   | PSC30R-05   | \$16.69 | \$15.15 | \$13.21 | \$11.54 |

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

## TRIAD Triad AC/DC Wall Adapters

- AC/DC unregulated
- Input rating: 120VAC @ 60Hz
- Output rating: 6-18VDC
- 6' cord lengths



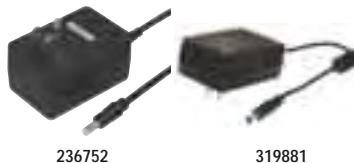
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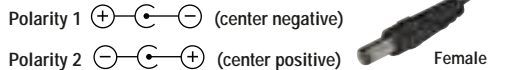
## Free Technical Support

Our knowledgeable Tech Support department is ready to answer your questions. Just call us! 1-800-831-4242

## 2-Wire AC Input – AC-to-DC Regulated Switching Wall Adapters



**We specialize in Wall Adapters – Call for additional OEM PRICING.**  
**We will change any power plug (pg 162) on any DC wall adapter listed (100 pc. minimum) for a small additional charge.**



| Part Number                              | Brand     | Product Number  | Output Rating |              | Output Connector ID x OD/Polarity<br>F = female; M = male | Input VAC @ Hz | Size H" x W" x D" | Case Color | Output Cord Length | Weight (lbs.) | Agency Approvals | Pricing              |         |         |         |
|--|-----------|-----------------|---------------|--------------|---|----------------|-------------------|------------|--------------------|---------------|------------------|----------------------|---------|---------|---------|
|  |           |                 | Voltage (VDC) | Current (mA) |   |                |                   |            |                    |               |                  | 1                    | 10      | 50      | 100     |
| 230544                                   | Phihong   | PSA05A-050      | 5             | 1000         | 2.1mm x 5.5mm F 2   | 90-264@47-63   | 2.4 x 1.8 x 1.0   | Black      | 4'                 | 0.4           | UL/CUL           | \$17.95              | \$16.95 | \$15.95 | \$14.95 |
| 228881                                   | Phihong   | PSC10A-050      | 5             | 2000         | 2.1mm x 5.5mm F 2   | 90-132@57-63   | 2.9 x 1.9 x 1.4   | Black      | 6'                 | 0.4           | UL/CUL           | 13.09                | 11.88   | 11.12   | 10.36   |
| 210894                                   | ReliaPro  | S15AB050200     | 5             | 2000         | 2.5mm x 5.5mm F 2   | 100-240@47-63  | 2.9 x 1.4 x 2.2   | Black      | 6'                 | 0.2           | UL/CUL           | 14.25                | 12.86   | 11.54   | 9.63    |
| 236752                                   | GlobTek   | WR92A2600CCP    | 5             | 2600         | 2.1mm x 5.5mm F 2   | 100-240@50-60  | 2.9 x 1.9 x 1.6   | Black      | 6'                 | 0.5           | UL/CUL/TUV/CE    | 13.49                | 12.15   | 10.95   | 9.85    |
| 319881                                   | Mean Well | ES18U05-P1J     | 5             | 3000         | 2.1mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 12.29                | 11.35   | 10.62   | 9.89    |
| 228937                                   | Phihong   | PSC15A-050      | 5             | 3000         | 2.1mm x 5.5mm F 2   | 90-132@57-63   | 2.9 x 1.9 x 1.4   | Black      | 6'                 | 0.4           | UL/CUL           | 13.55                | 12.20   | 11.40   | 10.60   |
| 379621                                   | Mean Well | ES25U05-P1J     | 5             | 4000         | 2.1mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 13.29                | 12.35   | 11.73   | 11.15   |
| 380323                                   | Mean Well | ES25U05-P1M     | 5             | 4000         | 2.5mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 14.25                | 13.79   | 13.35   | 12.89   |
| 380008                                   | Mean Well | ES25U07-P1J     | 7.5           | 2930         | 2.1mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 13.29                | 12.35   | 11.73   | 11.15   |
| 380331                                   | Mean Well | ES25U07-P1M     | 7.5           | 2930         | 2.5mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 16.49                | 15.64   | 14.86   | 14.12   |
| 228891                                   | Phihong   | PSC10A-090S     | 9             | 1100         | 2.1mm x 5.5mm F 2   | 90-132@57-63   | 2.9 x 1.9 x 1.4   | Black      | 6'                 | 0.4           | UL/CUL           | 12.79                | 11.99   | 10.99   | 10.49   |
| 228945                                   | Phihong   | PSC15A-090      | 9             | 1600         | 2.1mm x 5.5mm F 2   | 90-132@57-63   | 2.9 x 1.9 x 1.4   | Black      | 6'                 | 0.4           | UL/CUL           | 12.85                | 11.59   | 11.45   | 11.35   |
| 319899                                   | Mean Well | ES18U09-P1J     | 9             | 2000         | 2.1mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 12.29                | 11.35   | 10.62   | 9.89    |
| 380139                                   | Mean Well | ES25U09-P1J     | 9             | 2780         | 2.1mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 13.29                | 12.35   | 11.73   | 11.15   |
| 380350                                   | Mean Well | ES25U09-P1M     | 9             | 2780         | 2.5mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 14.25                | 13.79   | 13.35   | 12.89   |
| 228954                                   | Phihong   | PSC15A-120      | 12            | 1250         | 2.1mm x 5.5mm F 2   | 90-132@57-63   | 2.9 x 1.9 x 1.4   | Black      | 6'                 | 0.4           | UL/CUL           | 13.55                | 12.29   | 11.35   | 10.95   |
| 312865                                   | Mean Well | ES18U12-P1J     | 12            | 1500         | 2.1mm x 5.5mm F 2   | 100-240@50-60  | 3.2 x 2.1 x 1.3   | Black      | 6'                 | 0.2           | UL/CUL/CE        | 12.29                | 11.35   | 10.62   | 9.89    |
| 380155                                   | Mean Well | ES25U12-P1J     | 12            | 2080         | 2.1mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 13.29                | 12.35   | 11.73   | 11.15   |
| 380357                                   | Mean Well | ES25U12-P1M     | 12            | 2080         | 2.5mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 20.15                | 19.51   | 18.93   | 17.98   |
| 319920                                   | Mean Well | ES18U15-P1J     | 15            | 1200         | 2.1mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 12.29                | 11.35   | 10.62   | 9.25    |
| 380172                                   | Mean Well | ES25U15-P1J     | 15            | 1670         | 2.1mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 13.29                | 12.35   | 11.73   | 11.15   |
| 380366                                   | Mean Well | ES25U15-P1M     | 15            | 1670         | 2.5mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 14.25                | 13.79   | 13.35   | 12.89   |
| 380190                                   | Mean Well | ES25U18-P1J     | 18            | 1390         | 2.1mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 13.29                | 12.35   | 11.73   | 11.15   |
| 380374                                   | Mean Well | ES25U18-P1M     | 18            | 1390         | 2.5mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 14.25                | 13.79   | 13.35   | 12.89   |
| 228971                                   | Phihong   | PSC15A-240      | 24            | 620          | 2.1mm x 5.5mm F 2   | 90-132@57-63   | 2.9 x 1.9 x 1.4   | Black      | 6'                 | 0.4           | UL/CUL           | 13.55                | 12.29   | 11.35   | 10.95   |
| 319928                                   | Mean Well | ES18U24-P1J     | 24            | 750          | 2.1mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 12.29                | 11.35   | 10.62   | 9.25    |
| 380200                                   | Mean Well | ES25U24-P1J     | 24            | 1040         | 2.1mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 13.29                | 12.35   | 11.73   | 11.15   |
| 380391                                   | Mean Well | ES25U24-P1M     | 24            | 1040         | 2.5mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 14.25                | 13.79   | 13.35   | 12.89   |
| 380219                                   | Mean Well | ES25U28-P1J     | 28            | 890          | 2.1mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 13.29                | 12.35   | 11.73   | 11.15   |
| 380402                                   | Mean Well | ES25U28-P1M     | 28            | 890          | 2.5mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 14.25                | 13.79   | 13.35   | 12.89   |
| 380234                                   | Mean Well | ES25U36-P1J     | 36            | 690          | 2.1mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 13.29                | 11.96   | 10.95   | 9.93    |
| 380412                                   | Mean Well | ES25U36-P1M     | 36            | 690          | 2.5mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 14.25                | 13.79   | 13.35   | 12.89   |
| 380243                                   | Mean Well | ES25U48-P1J     | 48            | 520          | 2.1mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 13.29                | 12.35   | 11.73   | 11.15   |
| 380446                                   | Mean Well | ES25U48-P1M     | 48            | 520          | 2.5mm x 5.5mm F 2   | 90-264@47-63   | 3.1 x 2.1 x 1.3   | Black      | 6'                 | 0.5           | UL/CUL/CE        | 14.25                | 13.79   | 13.35   | 12.89   |
| <b>Other Manufacturers — Great Deals</b> |           |                 |               |              |   |                |                   |            |                    |               |                  | <b>Quantity SAVE</b> |         |         |         |
| 308048                                   | Potran    | UWP010210500    | 5             | 1500         | 2.1mm x 5.5mm right angle F 2                             | 100-240@60     | 2.8 x 1.4 x 2.1   | Black      | 10'2"              | 0.5           | UL/CUL           | \$11.05              | \$9.39  | \$7.05  | \$4.95  |
| 228726                                   | ORB       | 777-052000S-UF  | 5             | 2000         | 2.1mm x 5.5mm F 2   | 100@60         | 3.1 x 2.1 x 1.5   | Black      | 5'                 | 0.5           | UL/CUL           | 12.95                | 11.49   | 10.49   | 9.49    |
| 308697                                   | Both Hand | M1-10505        | 5             | 2000         | 2.1mm x 5.5mm F 2   | 120@60         | 2.2 x 1.9 x 1.0   | Black      | 6'                 | 0.3           | UL/CUL           | 10.65                | 9.59    | 7.67    | 5.75    |
| 189190                                   | Interex   | EPA101MU-05B    | 5             | 2000         | 2.5mm x 5.5mm F 1   | 100-240@50-60  | 3.2 x 2.8 x 1.3   | Black      | 6'                 | 0.4           | UL/CUL           | 12.49                | 11.24   | 8.99    | 7.19    |
| 689864                                   | DVE       | DSA-0151A-05    | 5             | 2400         | 2.5mm x 5.5mm right angle F 2                             | 100-120@50-60  | 3.2 x 2.1 x 1.4   | Black      | 6'                 | 0.5           | UL/CUL           | 11.95                | 10.75   | 9.49    | 7.95    |
| 684721                                   | Hitron    | HESIO-06020-0-2 | 6             | 2000         | 2.1mm x 5.5mm right angle F 2                             | 100-240@50-60  | 3.1 x 2.2 x 1.3   | Black      | 6'                 | 1.2           | UL/CUL/CE        | 12.95                | 11.75   | 10.49   | 8.95    |
| 308671                                   | Highpower | HPW-1009U       | 9             | 1110         | 2.1mm x 5.5mm F 2   | 100-240@50-60  | 3.0 x 2.0 x 1.2   | Black      | 6'                 | 0.3           | UL/CUL/TUV/CE    | 11.89                | 10.70   | 8.56    | 6.42    |
| 421649                                   | Unifive   | US100913        | 9             | 1300         | 2.5mm x 5.5mm F 2   | 100-120@50-60  | 2.4 x 1.7 x 1.2   | Black      | 6'                 | 0.2           | UL/CUL           | 11.89                | 10.70   | 8.56    | 6.42    |
| 1537547                                  | —         | AD1512C         | 12            | 1000         | 2.1mm x 5.5mm F 2   | 100-240@547-63 | 2.9 x 1.3 x 2.0   | Black      | 6'                 | 0.3           | UL/CUL           | 13.49                | 12.15   | 10.95   | 9.49    |

† 3-wire AC input

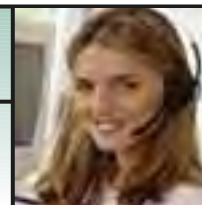
▲ Brand and product number may vary except for ReliaPro, Mean Well, Phihong and GlobTek

🔵 Blue Part No. = Limited Quantity Available

More AC-to-DC Wall Adapters listed on pages 240 - 243

## 30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 322.





# AC-to-DC Regulated Linear Wall Adapters



RoHS Compliant Product  
RoHS Also Available

Details on Page 1

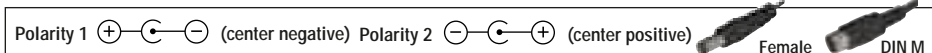
| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |



## 2-Wire AC Input – AC-to-DC Regulated Linear Wall Adapters

We specialize in Wall Adapters – Call for additional OEM PRICING.  
We will change any power plug (pg 162) on any DC wall adapter listed (100 pc. minimum) for a small additional charge.

• One-year warranty



| Part Number | Brand ▲  | Cross Ref. Number ▲ | Output Rating |              | Output Connector ID x OD/Polarity F = female; M = male | Input VAC @ Hz | Size H" x W" x D" | Case Color | Output Cord Length | Wt. (lbs.) | Agency Approvals | Pricing |        |        |        |
|-------------|----------|---------------------|---------------|--------------|--|----------------|-------------------|------------|--------------------|------------|------------------|---------|--------|--------|--------|
|             |          |                     | Voltage (VDC) | Current (mA) |  |                |                   |            |                    |            |                  | 1       | 10     | 50     | 100    |
| 164101      | ReliaPro | RDU050050           | 5             | 500          | 2.1mm x 5.5mm F 2                                      | 120@60         | 2.8 x 2.0 x 1.6   | Black      | 6'                 | 0.6        | CSA              | \$10.95 | \$9.86 | \$8.87 | \$7.98 |
| 220935      | ReliaPro | DDU050060           | 5             | 600          | 2.1mm x 5.5mm F 1                                      | 120@60         | 2.7 x 2.2 x 1.9   | Black      | 6'                 | 0.8        | UL/CUL           | 12.29   | 11.06  | 8.85   | 6.64   |
| 168605      | ReliaPro | DBU050100           | 5             | 1000         | 2.5mm x 5.5mm F 2                                      | 120@60         | 3.3 x 2.2 x 1.9   | Black      | 6'                 | 1.2        | UL/CSA           | 12.55   | 11.54  | 10.62  | 9.12   |
| 190512      | ReliaPro | DBU60020-H3570      | 6             | 200          | 2.1mm x 5.5mm F 2                                      | 120@60         | 2.2 x 1.7 x 1.5   | Black      | 6'                 | 0.4        | UL/CUL           | 7.65    | 6.89   | 5.98   | 4.47   |
| 220898      | ReliaPro | DCU120020           | 12            | 200          | 2.1mm x 5.5mm F 1                                      | 120@60         | 2.5 x 2.0 x 1.7   | Black      | 6'                 | 0.5        | UL/CUL           | 8.65    | 7.29   | 6.85   | 6.45   |
| 162996      | ReliaPro | DDU120050           | 12            | 500          | 2.1mm x 5.5mm F 2                                      | 120@60         | 3.2 x 2.2 x 1.9   | Black      | 6'                 | 0.9        | UL/CUL           | 10.95   | 9.86   | 8.87   | 7.98   |
| 170245      | ReliaPro | RDU120100           | 12            | 1000         | 2.1mm x 5.5mm F 2                                      | 120@60         | 3.2 x 2.3 x 2.0   | Black      | 6'                 | 1.2        | UL/CUL           | 15.35   | 13.82  | 12.43  | 10.36  |
| 174861      | ReliaPro | DFU240050           | 24            | 500          | 2.1mm x 5.5mm F 2                                      | 120@60         | 3.4 x 2.7 x 2.2   | Black      | 6'                 | 1.3        | UL/CUL           | 13.15   | 11.87  | 10.65  | 9.62   |
| 174879      | ReliaPro | RFU240050           | 24            | 500          | 2.5mm x 5.5mm F 2                                      | 120@60         | 3.4 x 2.7 x 2.2   | Black      | 6'                 | 1.3        | UL/CUL           | 13.15   | 11.87  | 10.65  | 9.62   |

### Other Manufacturers — Great Deals

**SALE**

**Quantity SAVE**

|        |          |              |        |         |                               |        |                 |       |     |     |        |         |        |        |        |
|--------|----------|--------------|--------|---------|-------------------------------|--------|-----------------|-------|-----|-----|--------|---------|--------|--------|--------|
| 289182 | AESP     | AD-5600RDU   | 5      | 600     | 2.1mm x 5.5mm F 2             | 120@60 | 3.1 x 2.8 x 1.9 | Black | 6'  | 0.9 | UL/CUL | \$10.49 | \$9.45 | \$7.55 | \$5.65 |
| 319986 | —        | DV-580R      | 5      | 800     | 2.5mm x 5.5mm F 2             | 120@60 | 3.2 x 2.2 x 2.0 | Black | 6'  | 1.0 | UL/CUL | 9.95    | 8.95   | 7.16   | 5.37   |
| 297941 | —        | JOD-480-08   | 5      | 1000    | 2.5mm x 5.5mm F 2             | 120@60 | 3.1 x 2.3 x 1.9 | Black | 6'  | 0.9 | UL     | 10.99   | 9.89   | 7.91   | 5.94   |
| 681571 | ITE      | RWP480505-2  | 5      | 1000    | 2.5mm x 5.5mm right angle F 2 | 120@60 | 3.3 x 2.2 x 1.9 | Black | 6'  | 1.0 | UL/CUL | 10.95   | 8.95   | 6.95   | 5.21   |
| 154624 | Motorola | 512-305-4C3E | +5/±12 | 500/130 | 8-pin DIN M                   | 120@60 | 2.9 x 2.6 x 1.9 | Black | 6'  | 1.2 | UL/CSA | 12.95   | 11.66  | 10.09  | 9.29   |
| 283573 | —        | DC600500     | 6      | 500     | 2.1mm x 5.5mm F 2             | 120@60 | 3.1 x 2.0 x 1.7 | Black | 6'  | 0.6 | UL/CSA | 7.85    | 7.05   | 6.21   | 5.49   |
| 190529 | NOMA     | AD9123       | 9      | 250     | 2.5mm x 5.5mm right angle F 2 | 120@60 | 2.5 x 2.0 x 1.6 | Black | 12' | 0.5 | UL/CSA | 7.15    | 6.44   | 5.79   | 5.21   |
| 425527 | Condor   | 48-9-700R    | 9      | 700     | 2.1mm x 5.5mm F 1             | 120@60 | 3.2 x 2.3 x 1.9 | Black | 6'  | 1.0 | UL/CUL | 11.89   | 10.97  | 10.42  | 9.50   |

▲ Brand and cross reference number may vary except for ReliaPro, Mean Well, Pihong and Globtek

## 2-Wire AC Input – AC-to-DC Unregulated Wall Adapters



We specialize in Wall Adapters – Call for additional OEM PRICING.  
We will change any power plug (pg 162) on any DC wall adapter listed (100 pc. minimum) for a small additional charge.

• Input: 120VAC @ 60Hz • One-year warranty



| Part Number | Brand ▲  | Cross Ref. Number ▲ | Output Rating |              | Output Connector ID x OD/Polarity F = female; M = male | Size H" x W" x D" | Case Color | Output Cord Length | Wt. (lbs.) | Agency Approvals | Pricing |        |        |        |
|-------------|----------|---------------------|---------------|--------------|--|-------------------|------------|--------------------|------------|------------------|---------|--------|--------|--------|
|             |          |                     | Voltage (VDC) | Current (mA) |  |                   |            |                    |            |                  | 1       | 10     | 50     | 100    |
| 112070      | ReliaPro | DBU050022           | 5             | 225          | 2.5mm x 5.5mm F 2                                      | 1.9 x 2.2 x 2.0   | Black      | 7'                 | 0.3        | UL/CSA           | \$8.05  | \$7.25 | \$6.52 | \$5.87 |
| 155601      | ReliaPro | DCU050100           | 5             | 1000         | 2.1mm x 5.5mm F 2                                      | 2.6 x 2.0 x 1.7   | Black      | 6'                 | 0.7        | UL/CSA           | 5.19    | 4.67   | 4.20   | 3.50   |
| 119255      | ReliaPro | DBU060050           | 6             | 500          | 2.1mm x 5.5mm F 1                                      | 2.3 x 1.8 x 1.8   | Black      | 6'                 | 0.6        | UL/CUL           | 4.75    | 4.28   | 3.85   | 3.46   |
| 101266      | ReliaPro | DBU060050           | 6             | 500          | 2.1mm x 5.5mm F 2                                      | 2.4 x 1.9 x 1.6   | Black      | 6'                 | 0.4        | UL/CSA           | 4.59    | 4.28   | 3.42   | 2.57   |
| 15544       | ReliaPro | DBU060050           | 6             | 500          | 3.5mm M 2  | 2.4 x 1.9 x 1.6   | Black      | 6'                 | 0.4        | UL/CSA           | 4.75    | 4.28   | 3.42   | 2.57   |
| 147707      | ReliaPro | DBU060080           | 6             | 800          | 2.1mm x 5.5mm F 2                                      | 2.3 x 2.0 x 1.6   | Black      | 6'                 | 0.6        | UL/CSA           | 5.45    | 4.94   | 4.46   | 4.02   |
| 220943      | ReliaPro | DCU060120           | 6             | 1200         | 2.1mm x 5.5mm F 1                                      | 2.5 x 2.0 x 1.7   | Black      | 6'                 | 0.7        | UL/CUL           | 7.15    | 6.44   | 5.15   | 3.86   |
| 220951      | ReliaPro | DCU075100           | 7.5           | 1000         | 2.1mm x 5.5mm F 1                                      | 2.5 x 2.0 x 1.7   | Black      | 6'                 | 0.6        | UL/CUL           | 4.75    | 4.35   | 3.92   | 3.57   |
| 280250      | ReliaPro | DDU075110           | 7.5           | 1100         | 2.1mm x 5.5mm F 2                                      | 2.9 x 2.3 x 1.9   | Black      | 6'                 | 0.9        | UL/CUL           | 6.95    | 6.26   | 5.01   | 3.76   |
| 127511      | ReliaPro | DDU080100           | 8             | 1000         | 2.1mm x 5.5mm F 2                                      | 3.1 x 2.5 x 2.1   | Black      | 6'                 | 1.3        | UL               | 8.75    | 7.88   | 6.30   | 4.73   |

### Other Manufacturers — Great Deals

**SALE**

**Quantity SAVE**

|        |          |                |     |      |                   |                 |       |    |     |        |        |        |        |        |
|--------|----------|----------------|-----|------|-------------------|-----------------|-------|----|-----|--------|--------|--------|--------|--------|
| 237227 | Freeplay | DX351307       | 4.5 | 100  | 1.3mm x 3.5mm F 2 | 2.4 x 1.7 x 1.4 | Black | 6' | 0.4 | UL/CSA | \$1.29 | \$1.15 | \$1.04 | \$ .94 |
| 320303 | Globtek  | WR1A1000CCP-N  | 5   | 1000 | 2.1mm x 5.5mm F 2 | 3.2 x 2.3 x 1.9 | Black | 6' | 1.0 | UL/CUL | 9.49   | 8.55   | 6.85   | 5.15   |
| 219651 | —        | FE4823-050E120 | 5   | 1200 | 2.5mm x 5.5mm F 2 | 3.5 x 2.4 x 1.9 | Black | 6' | 1.2 | UL/CUL | 5.15   | 4.47   | 3.71   | 2.78   |
| 237251 | Freeplay | DPX350817      | 6   | 100  | 2.1mm x 5.5mm F 2 | 2.4 x 1.7 x 1.4 | Black | 6' | 0.4 | UL/CSA | 3.95   | 3.55   | 2.89   | 2.53   |
| 302439 | —        | AD-0630M       | 6   | 300  | 2.1mm x 5.5mm F 2 | 2.2 x 1.7 x 1.5 | Black | 6' | 0.4 | UL/CSA | 3.99   | 3.59   | 2.87   | 2.15   |
| 682363 | Epson    | H00AA          | 6   | 600  | 2.1mm x 5.5mm F 1 | 2.4 x 2.1 x 1.6 | Black | 6' | 0.6 | UL/CSA | 4.49   | 3.95   | 3.49   | 2.49   |
| 227951 | —        | JOD-48U-33     | 6   | 2100 | 2.1mm x 5.5mm F 2 | 3.3 x 2.2 x 1.9 | Black | 6' | 1.3 | UL/CUL | 7.79   | 7.15   | 6.45   | 5.79   |
| 248751 | Uniq     | AD-071A        | 7.5 | 1000 | 2.5mm x 5.5mm F 2 | 2.3 x 2.3 x 1.9 | Black | 6' | 0.9 | UL/CSA | 6.49   | 5.85   | 4.69   | 3.50   |
| 249279 | AESP     | MW41-0751000   | 7.5 | 1000 | 2.1mm x 5.5mm F 2 | 3.2 x 2.0 x 1.7 | Black | 6' | 0.8 | UL/CUL | 6.95   | 6.26   | 5.01   | 3.76   |

▲ Brand and cross reference number may vary except for ReliaPro, Mean Well, Pihong and Globtek

● Blue Part No. = Limited Quantity Available

More AC-to-DC Wall Adapters listed on pages 238, 239 & 241 - 243

We're Listening to  
What You Need

Our goal is to provide you with more of what you want. Let us know how we can better serve your electronics needs. Please send your requests to [NewProducts@Jameco.com](mailto:NewProducts@Jameco.com).

# AC-to-DC Unregulated Wall Adapters



We specialize in Wall Adapters – Call for additional OEM PRICING.  
We will change any power plug (pg 162) on any DC wall adapter listed (100 pc. minimum) for a small additional charge.

• Input: 120VAC @ 60Hz • One-year warranty



Polarity 1  (center negative) Female Male Stripped Polarity 2  (center positive)

| Part Number | Brand ▲  | Cross Ref. Number ▲ | Output Rating |              | Output Connector ID x OD/Polarity F = female; M = male | Size H" x W" x D" | Case Color | Output Cord Length | Wt. (lbs.) | Agency Approvals | Pricing |        |        |        |
|-------------|----------|---------------------|---------------|--------------|--|-------------------|------------|--------------------|------------|------------------|---------|--------|--------|--------|
|             |          |                     | Voltage (VDC) | Current (mA) |  |                   |            |                    |            |                  | 1       | 10     | 50     | 100    |
| 100845      | ReliaPro | DBU090020           | 9             | 200          | 2.1mm x 5.5mm F 2                                      | 2.1 x 1.7 x 1.5   | Black      | 6'                 | 0.4        | UL/CSA           | \$4.49  | \$3.97 | \$3.48 | \$3.14 |
| 134025      | ReliaPro | DBU090020           | 9             | 200          | 2.1mm x 5.5mm F 1                                      | 2.1 x 1.7 x 1.6   | Black      | 6'                 | 0.4        | UL/CSA           | 6.05    | 5.15   | 4.25   | 3.18   |
| 100837      | ReliaPro | DBU090020           | 9             | 200          | 3.5mm M 2  | 2.6 x 1.8 x 1.6   | Black      | 6'                 | 0.4        | UL/CSA           | 4.35    | 3.95   | 3.58   | 3.25   |
| 133891      | ReliaPro | DBU090030           | 9             | 300          | 2.1mm x 5.5mm F 2                                      | 2.0 x 1.5 x 1.5   | Black      | 6'                 | 0.4        | UL/CSA           | 4.35    | 3.49   | 3.05   | 2.59   |
| 189238      | ReliaPro | DBU090030           | 9             | 300          | 2.5mm x 5.5mm F 2                                      | 2.2 x 1.7 x 1.5   | Black      | 6'                 | 0.4        | UL/CUL           | 4.79    | 4.31   | 3.45   | 2.61   |
| 318676      | ReliaPro | DBU090030           | 9             | 300          | 2.5mm x 5.5mm F 1                                      | 2.2 x 1.7 x 1.5   | Black      | 6'                 | 0.4        | UL/CUL           | 4.29    | 3.86   | 3.09   | 2.54   |
| 202155      | ReliaPro | DBU090035           | 9             | 350          | 2.1mm x 5.5mm F 2                                      | 2.2 x 1.7 x 1.5   | Black      | 6'                 | 0.3        | UL/CUL           | 3.65    | 3.26   | 2.93   | 2.64   |
| 140636      | ReliaPro | DCU090040           | 9             | 400          | 2.5mm x 5.5mm F 2                                      | 2.6 x 2.0 x 2.0   | Black      | 6'                 | 0.6        | UL/CSA           | 4.59    | 4.13   | 3.30   | 2.69   |
| 202171      | ReliaPro | DCU090045           | 9             | 450          | 2.1mm x 5.5mm F 2                                      | 3.3 x 2.9 x 2.3   | Black      | 6'                 | 0.5        | UL/CUL           | 4.79    | 4.30   | 3.44   | 2.81   |
| 163628      | ReliaPro | DCU090050           | 9             | 500          | 2.1mm x 5.5mm F 1                                      | 2.5 x 1.9 x 1.7   | Black      | 6'                 | 0.6        | UL/CSA           | 6.05    | 5.44   | 4.90   | 4.35   |
| 100853      | ReliaPro | DCU090050           | 9             | 500          | 2.1mm x 5.5mm F 2                                      | 2.5 x 1.9 x 1.7   | Black      | 6'                 | 0.6        | UL/CSA           | 5.45    | 4.90   | 4.41   | 3.97   |
| 147731      | ReliaPro | AD-11950            | 9             | 500          | 2.1mm x 5.5mm F 2                                      | 2.6 x 2.0 x 1.7   | Beige      | 6'                 | 0.6        | UL/CSA           | 4.55    | 4.09   | 3.69   | 3.39   |
| 236937      | ReliaPro | DCU090050A          | 9             | 500          | 2.5mm x 5.5mm right angle F 2                          | 2.5 x 2.0 x 1.7   | Black      | 6'                 | 0.4        | UL/CSA           | 6.35    | 5.72   | 5.14   | 3.86   |
| 15561       | ReliaPro | DCU090050           | 9             | 500          | 3.5mm M 2  | 2.5 x 2.0 x 1.6   | Black      | 6'                 | 0.5        | UL/CSA           | 5.35    | 4.81   | 4.33   | 3.90   |
| 202180      | ReliaPro | DCU090060           | 9             | 600          | 2.1mm x 5.5mm F 2                                      | 3.3 x 2.9 x 2.3   | Black      | 6'                 | 0.6        | UL/CUL           | 5.39    | 4.83   | 4.35   | 3.68   |
| 100175      | ReliaPro | DCU090060           | 9             | 600          | 2.5mm x 5.5mm F 2                                      | 2.7 x 2.0 x 1.7   | Black      | 6'                 | 0.6        | UL/CSA           | 6.05    | 5.22   | 4.68   | 4.35   |
| 202198      | ReliaPro | DCU090080           | 9             | 800          | 2.1mm x 5.5mm F 2                                      | 3.3 x 2.9 x 2.3   | Black      | 6'                 | 0.6        | UL/CUL           | 7.65    | 6.89   | 6.20   | 5.58   |
| 364576      | ReliaPro | DDU09100J0490       | 9             | 1000         | 2.1mm x 5.5mm F 2                                      | 2.9 x 2.3 x 1.9   | Black      | 6'                 | 0.9        | UL/CUL           | 8.75    | 7.87   | 6.98   | 6.06   |
| 127504      | ReliaPro | DC910F5-VP          | 9             | 1000         | 2.5mm x 5.5mm F 2                                      | 2.6 x 2.4 x 2.0   | Black      | 6'                 | 0.9        | UL/CSA           | 8.25    | 7.42   | 6.68   | 5.55   |
| 155587      | ReliaPro | DDU09100            | 9             | 1000         | 3.5mm M 2  | 2.6 x 2.4 x 2.0   | Black      | 6'                 | 0.9        | UL/CSA           | 8.75    | 7.88   | 6.30   | 4.73   |
| 130526      | ReliaPro | DDE090120           | 9             | 1200         | 2.1mm x 5.5mm F 1                                      | 2.4 x 2.0 x 1.8   | Black      | 6'                 | 1.0        | UL/CSA           | 9.85    | 8.86   | 7.29   | 6.59   |
| 143693      | ReliaPro | DFU0901500A3040     | 9             | 1500         | 2.1mm x 5.5mm F 2                                      | 3.3 x 2.5 x 2.3   | Black      | 6'                 | 1.3        | UL/CSA           | 10.95   | 9.86   | 8.03   | 5.99   |
| 163993      | ReliaPro | DBU120020           | 12            | 200          | 2.1mm x 5.5mm right angle F 1                          | 2.4 x 1.7 x 1.6   | Black      | 6'                 | 0.4        | UL/CSA           | 5.25    | 4.73   | 4.25   | 3.83   |
| 100095      | ReliaPro | DBU120020           | 12            | 200          | 2.1mm x 5.5mm F 2                                      | 2.1 x 1.8 x 1.5   | Black      | 6'                 | 0.4        | UL/CSA           | 4.35    | 3.92   | 3.12   | 2.34   |
| 158043      | ReliaPro | DBU120020           | 12            | 200          | 2.1mm x 5.5mm right angle F 2                          | 2.2 x 1.7 x 1.5   | Black      | 6'                 | 0.4        | UL/CSA           | 4.85    | 4.54   | 3.81   | 2.85   |
| 220433      | ReliaPro | DBU120020           | 12            | 200          | 2.5mm x 5.5mm right angle F 2                          | 2.2 x 1.7 x 1.5   | Lt. Gray   | 6'                 | 0.4        | UL/CSA           | 4.95    | 4.46   | 3.57   | 2.68   |
| 185658      | ReliaPro | DBU120020           | 12            | 200          | 2.5mm x 5.5mm right angle F 2                          | 2.2 x 1.7 x 1.5   | Black      | 6'                 | 0.4        | UL/CSA           | 5.29    | 4.76   | 3.81   | 2.86   |
| 219601      | ReliaPro | DCU120025           | 12            | 250          | Stripped & tinned                                      | 2.5 x 2.0 x 1.7   | Dk. Gray   | 6'                 | 0.4        | UL/CUL           | 4.35    | 3.91   | 3.12   | 2.34   |
| 318692      | ReliaPro | DBU120030           | 12            | 300          | 1.3mm x 3.5mm right angle F 2                          | 2.2 x 1.7 x 1.5   | Black      | 6'                 | 0.4        | UL/CSA           | 4.59    | 3.73   | 3.29   | 2.52   |
| 127976      | ReliaPro | DCU120030           | 12            | 300          | 2.1mm x 5.5mm F 2                                      | 2.6 x 1.8 x 1.6   | Black      | 6'                 | 0.7        | UL/CSA           | 5.25    | 4.59   | 3.85   | 3.25   |
| 249236      | ReliaPro | DBU120030           | 12            | 300          | 2.5mm x 5.5mm right angle F 2                          | 2.2 x 1.7 x 1.5   | Black      | 6'                 | 0.5        | UL/CUL           | 5.35    | 4.82   | 3.86   | 2.90   |
| 190502      | ReliaPro | ADA-410             | 12            | 400          | 2.1mm x 5.5mm right angle F 2                          | 2.6 x 2.1 x 1.9   | Black      | 6'                 | 0.5        | UL/CUL           | 7.35    | 6.62   | 5.30   | 4.00   |
| 114825      | ReliaPro | DCU120050           | 12            | 500          | Connector end may vary                                 | 2.5 x 2.0 x 1.7   | Black      | 6'                 | 0.6        | UL/CUL           | 5.25    | 4.78   | 3.80   | 2.85   |
| 15368       | ReliaPro | DCU120050           | 12            | 500          | 2.1mm x 5.5mm F 1                                      | 2.5 x 1.9 x 1.6   | Black      | 6'                 | 0.6        | UL/CSA           | 7.15    | 6.44   | 5.79   | 5.21   |
| 102496      | ReliaPro | DCU120050           | 12            | 500          | 2.1mm x 5.5mm F 2                                      | 2.5 x 1.9 x 1.6   | Black      | 6'                 | 0.6        | UL/CSA           | 5.79    | 4.58   | 4.00   | 3.81   |
| 131300      | ReliaPro | DCU120050           | 12            | 500          | 2.1mm x 5.5mm right angle F 2                          | 2.6 x 1.9 x 1.7   | Beige      | 6'                 | 0.6        | UL/CSA           | 6.05    | 5.44   | 4.90   | 4.41   |
| 102277      | ReliaPro | DCU120050U          | 12            | 500          | 2.5mm x 5.5mm F 2                                      | 2.5 x 2.1 x 1.7   | Black      | 6'                 | 0.6        | UL/CSA           | 5.69    | 5.12   | 4.61   | 4.15   |
| 17267       | ReliaPro | DCU120050           | 12            | 500          | 3.5mm M 2  | 2.5 x 1.9 x 1.6   | Black      | 6'                 | 0.6        | UL/CSA           | 5.69    | 5.12   | 4.61   | 4.15   |
| 202201      | ReliaPro | DCU120060           | 12            | 600          | 2.1mm x 5.5mm F 2                                      | 3.3 x 2.9 x 2.3   | Black      | 6'                 | 0.6        | UL/CUL           | 5.45    | 4.90   | 4.32   | 3.99   |
| 202219      | ReliaPro | DCU120070           | 12            | 700          | 2.1mm x 5.5mm F 2                                      | 3.3 x 2.9 x 2.3   | Black      | 6'                 | 0.6        | UL/CUL           | 5.69    | 5.14   | 4.11   | 3.08   |

## Other Manufacturers — Great Deals

Quantity SAVE



SALE

|        |                |              |    |      |                               |                 |          |    |     |        |        |        |        |        |
|--------|----------------|--------------|----|------|-------------------------------|-----------------|----------|----|-----|--------|--------|--------|--------|--------|
| 622563 | Stancor        | STA-3590B    | 9  | 100  | 2.1mm x 5.5mm F 1             | 2.2 x 1.7 x 1.5 | Black    | 6' | 0.4 | UL/CSA | \$3.95 | \$3.55 | \$3.19 | \$2.89 |
| 355936 | —              | 35-9-200C    | 9  | 200  | 1.3mm x 3.5mm F 2             | 2.5 x 1.7 x 1.5 | Black    | 6' | 0.4 | UL/CSA | 3.79   | 3.41   | 2.72   | 2.05   |
| 237243 | Freeplay       | DPX351322    | 9  | 200  | 2.1mm x 5.5mm F 2             | 2.4 x 1.7 x 1.4 | Black    | 6' | 0.4 | UL/CSA | 2.35   | 2.15   | 1.92   | 1.74   |
| 400899 | WABI           | LF09250D-08  | 9  | 250  | 2.5mm x 5.5mm F 2             | 2.2 x 1.7 x 1.5 | Black    | 6' | 0.4 | UL/CUL | 4.09   | 3.27   | 2.86   | 2.15   |
| 657029 | Motorola       | SPN4622A     | 9  | 300  | 1.3mm x 3.5mm right angle F 2 | 2.3 x 1.8 x 1.5 | Black    | 6' | 0.4 | UL     | 4.29   | 3.86   | 3.09   | 2.32   |
| 169519 | Panasonic      | KX-TCA1      | 9  | 350  | 2.1mm x 5.5mm right angle F 1 | 2.7 x 1.7 x 1.6 | Dk. Gray | 6' | 0.4 | UL/CSA | 3.85   | 3.47   | 3.12   | 2.81   |
| 319177 | Explore Tech   | 41-9-5000    | 9  | 500  | 2.1mm x 5.5mm F 2             | 2.5 x 2.0 x 1.6 | Black    | 6' | 0.6 | UL/CSA | 4.15   | 3.74   | 2.99   | 2.24   |
| 170270 | Panasonic      | POLV1        | 9  | 500  | 2.1mm x 5.5mm right angle F 1 | 2.7 x 1.9 x 1.8 | Gray     | 6' | 0.6 | UL/CSA | 4.95   | 4.46   | 3.56   | 2.67   |
| 652341 | Cidco          | SPA-4180-65  | 9  | 600  | 2.5mm x 5.5mm right angle F 2 | 2.6 x 2.0 x 1.6 | Black    | 6' | 0.6 | UL/CSA | 4.75   | 4.29   | 3.49   | 2.49   |
| 421577 | Powerline      | 0900-12      | 9  | 850  | 2.5mm x 5.5mm F 2             | 2.7 x 2.1 x 1.7 | Black    | 6' | 0.8 | UL/CSA | 7.35   | 6.62   | 5.29   | 3.97   |
| 164929 | —              | DDU090100    | 9  | 900  | 2.1mm x 5.5mm F 1             | 2.7 x 2.3 x 1.8 | Black    | 6' | 0.9 | UL/CUL | 8.75   | 7.86   | 6.33   | 4.72   |
| 227774 | GTE            | ADP2108GT    | 9  | 1000 | 2.1mm x 5.5mm right angle F 2 | 2.5 x 2.2 x 1.9 | Black    | 6' | 0.9 | UL/CUL | 7.95   | 7.15   | 5.75   | 4.29   |
| 421690 | —              | SA48-29A     | 9  | 1000 | 2.1mm x 5.5mm F 2             | 3.1 x 2.2 x 1.8 | Black    | 6' | 1.1 | UL/CSA | 7.15   | 5.68   | 4.97   | 3.73   |
| 285958 | API            | AP2072P      | 9  | 1000 | 2.5mm x 5.5mm right angle F 2 | 2.5 x 2.3 x 1.9 | Black    | 6' | 0.9 | UL/CUL | 6.95   | 6.26   | 4.99   | 3.75   |
| 237067 | APS            | D9-15-950    | 9  | 1500 | 2.5mm x 5.5mm F 2             | 3.1 x 2.3 x 1.9 | Black    | 6' | 1.3 | UL/CUL | 9.95   | 8.96   | 7.16   | 5.37   |
| 457799 | Condor         | DSA-0151F-09 | 9  | 200  | 2.1mm x 5.5mm F 1             | 3.2 x 2.1 x 1.7 | Black    | 6' | 0.5 | UL/CUL | 12.75  | 11.83  | 11.24  | 10.68  |
| 684836 | Southwest Bell | KEC-41-100-5 | 10 | 500  | 2.1mm x 5.5mm F 2             | 2.4 x 2.0 x 1.7 | Black    | 6' | 0.6 | UL/CUL | 4.49   | 3.95   | 3.49   | 2.65   |
| 661079 | —              | DP300-04     | 12 | 200  | 2.1mm x 5.5mm right angle F 1 | 2.2 x 1.7 x 1.5 | Black    | 6' | 0.4 | UL/CSA | 3.95   | 3.59   | 2.89   | 2.10   |
| 201099 | —              | SPN4230A     | 12 | 300  | 1.3mm x 3.5mm right angle F 2 | 2.3 x 2.0 x 1.7 | Black    | 6' | 0.5 | UL/CSA | 4.99   | 4.49   | 4.05   | 3.35   |

▲ Brand and cross reference number may vary except for ReliaPro, Mean Well, Pihong and Globtek

Blue Part No. = Limited Quantity Available

More AC-to-DC Wall Adapters listed on pages 238 - 240, 242 & 243

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

Color Code Legend  
New Sale Lower\$ QtySave

Order 24/7 Toll Free 1-800-831-4242

241

# AC-to-DC Unregulated Wall Adapters (Continued)

| Color Code Legend |      |         |         |
|-------------------|------|---------|---------|
| New               | Sale | Lower\$ | QtySave |



We specialize in Wall Adapters – Call for additional OEM PRICING.  
We will change any power plug (pg 162) on any DC wall adapter listed (100 pc. minimum) for a small additional charge.



• Input: 120VAC @ 60Hz • One-year warranty

Quantity SAVE

| Part Number | Brand ▲  | Cross Ref. Number ▲ | Output Rating              |            | Output Connector ID x OD/Polarity F = female; M = male | Size H" x W" x D" | Case Color | Output Cord Length | Wt. (lbs.) | Agency Approvals | Pricing |        |        |        |
|-------------|----------|---------------------|----------------------------|------------|--|-------------------|------------|--------------------|------------|------------------|---------|--------|--------|--------|
|             |          |                     | Voltage (VDC)              | Curr. (mA) |  |                   |            |                    |            |                  | 1       | 10     | 50     | 100    |
| 121232      | ReliaPro | DDU120080           | 12                         | 800        | 3.5mm M 2  | 2.6 x 2.4 x 2.0   | Black      | 6'                 | 0.9        | UL/CSA           | \$6.79  | \$6.13 | \$4.91 | \$3.67 |
| 117479      | ReliaPro | DDU120080           | 12                         | 800        | 2.1mm x 5.5mm F 2                                      | 3.0 x 2.3 x 2.0   | Black      | 6'                 | 0.9        | UL/CSA           | 7.65    | 6.89   | 6.20   | 5.58   |
| 129331      | ReliaPro | DDU120080           | 12                         | 800        | 2.5mm x 5.5mm F 2                                      | 3.0 x 2.3 x 2.0   | Black      | 6'                 | 0.9        | UL/CSA           | 6.15    | 5.54   | 4.98   | 4.48   |
| 100870      | ReliaPro | DDU120100           | 12                         | 1000       | 2.1mm x 5.5mm F 2                                      | 2.6 x 2.4 x 1.9   | Black      | 6'                 | 0.9        | UL/CSA           | 8.99    | 8.09   | 7.28   | 6.55   |
| 105478      | ReliaPro | DDU120100           | 12                         | 1000       | 2.5mm x 5.5mm F 2                                      | 3.1 x 2.4 x 2.0   | Black      | 6'                 | 1.0        | UL/CSA           | 8.25    | 7.42   | 6.30   | 4.73   |
| 15392       | ReliaPro | DDU120100           | 12                         | 1000       | 3.5mm M 2  | 3.3 x 2.4 x 2.0   | Black      | 6'                 | 1.0        | UL/CSA           | 8.75    | 7.88   | 7.09   | 6.38   |
| 213559      | ReliaPro | GPC-081             | 12                         | 1000       | Auto lighter power outlet                              | 4.3 x 2.2 x 1.9   | Black      | —                  | 1.1        | UL/CUL           | 13.95   | 12.56  | 11.30  | 10.10  |
| 196779      | ReliaPro | DDU120120           | 12                         | 1200       | 2.5mm x 5.5mm F 2                                      | 3.0 x 2.3 x 1.9   | Black      | 6'                 | 1.0        | UL/CUL           | 9.69    | 8.70   | 7.81   | 6.92   |
| 203036      | ReliaPro | DDU120150           | 12                         | 1500       | 2.1mm x 5.5mm F 1                                      | 3.3 x 2.2 x 1.9   | Black      | 6'                 | 1.5        | UL/CUL           | 14.25   | 12.82  | 10.29  | 7.69   |
| 313226      | ReliaPro | DFU120150           | 12                         | 1500       | Stripped & tinned (w/ on-off switch)                   | 3.4 x 2.6 x 2.2   | Black      | 8'                 | 1.5        | UL               | 11.45   | 10.40  | 9.33   | 8.30   |
| 136881      | ReliaPro | DFU120150           | 12                         | 1500       | 2.1mm x 5.5mm F 2                                      | 3.4 x 2.7 x 2.2   | Black      | 6'                 | 1.5        | UL               | 14.25   | 12.82  | 11.54  | 10.39  |
| 101291      | ReliaPro | D571201500U         | 12                         | 1500       | 2.5mm x 5.5mm F 2                                      | 3.4 x 2.7 x 2.2   | Black      | 6'                 | 1.5        | UL               | 11.45   | 10.30  | 9.27   | 8.35   |
| 249738      | ReliaPro | MW57-1202000        | 12                         | 2000       | Stripped & tinted                                      | 3.3 x 2.7 x 2.2   | Black      | 10'                | 2.0        | UL/CUL           | 9.95    | 8.95   | 8.05   | 7.25   |
| 308099      | ReliaPro | DDU135100           | 13.5                       | 1000       | 2.1mm x 5.5mm F 2                                      | 2.9 x 2.3 x 1.9   | Black      | 6'                 | 1.0        | UL/CUL           | 8.95    | 8.09   | 7.16   | 6.22   |
| 212812      | ReliaPro | DBU140020           | 14                         | 200        | 2.1mm x 5.5mm F 2                                      | 2.2 x 1.7 x 1.5   | Black      | 6'                 | 0.8        | UL/CUL           | 3.35    | 3.07   | 2.80   | 2.52   |
| 212821      | ReliaPro | DBU140030           | 14                         | 300        | 2.1mm x 5.5mm F 2                                      | 2.2 x 1.7 x 1.5   | Black      | 6'                 | 0.8        | UL/CUL           | 4.95    | 4.45   | 3.55   | 2.66   |
| 123932      | ReliaPro | DDU140070           | 14                         | 700        | 2.1mm x 5.5mm F 2                                      | 2.6 x 2.4 x 2.0   | Black      | 6'                 | 1.0        | UL/CSA           | 9.35    | 8.41   | 6.73   | 5.05   |
| 202243      | ReliaPro | DDU140070           | 14                         | 700        | 2.5mm x 5.5mm F 2                                      | 3.9 x 2.9 x 2.4   | Black      | 6'                 | 0.8        | UL/CUL           | 8.95    | 8.06   | 6.44   | 4.83   |
| 202260      | ReliaPro | DDU140100           | 14                         | 1000       | 2.1mm x 5.5mm F 2                                      | 3.9 x 2.9 x 2.4   | Black      | 6'                 | 0.9        | UL/CUL           | 8.75    | 7.65   | 6.88   | 5.16   |
| 190001      | ReliaPro | DCU150050           | 15                         | 500        | 2.1mm x 5.5mm F 2                                      | 2.3 x 2.4 x 1.9   | Black      | 6'                 | 0.8        | UL/CSA           | 7.65    | 6.92   | 5.55   | 4.17   |
| 189982      | ReliaPro | DCU150050           | 15                         | 500        | 2.5mm x 5.5mm F 2                                      | 2.3 x 2.4 x 1.9   | Black      | 6'                 | 0.8        | UL/CSA           | 7.65    | 6.92   | 5.55   | 4.17   |
| 155803      | ReliaPro | DDU150060           | 15                         | 600        | 2.1mm x 5.5mm F 1                                      | 2.9 x 2.3 x 1.9   | Black      | 6'                 | 1.0        | UL/CSA           | 9.85    | 8.86   | 7.09   | 5.31   |
| 232258      | ReliaPro | DDU150080           | 15                         | 800        | 2.1mm x 5.5mm F 1                                      | 2.9 x 2.3 x 1.9   | Black      | 6'                 | 1.0        | UL               | 4.75    | 4.34   | 3.94   | 3.58   |
| 203502      | ReliaPro | DDU150090           | 15                         | 900        | 2.5mm x 5.5mm F 2                                      | 2.6 x 2.2 x 1.9   | Black      | 6'                 | 1.0        | UL/CSA           | 7.65    | 6.89   | 5.51   | 4.13   |
| 151992      | ReliaPro | DDU150100           | 15                         | 1000       | 2.1mm x 5.5mm F 1                                      | 3.1 x 2.0 x 1.9   | Beige      | 6'                 | 1.5        | UL/CSA           | 9.35    | 8.41   | 6.72   | 5.04   |
| 191652      | ReliaPro | DDU150100           | 15                         | 1000       | 2.1mm x 5.5mm F 2                                      | 3.3 x 2.2 x 1.9   | Black      | 6'                 | 1.0        | UL/CSA           | 10.55   | 9.50   | 8.55   | 7.69   |
| 162317      | ReliaPro | DDU165050           | 16                         | 500        | 2.1mm x 5.5mm F 2                                      | 2.5 x 2.0 x 1.7   | Black      | 6'                 | 0.8        | UL/CSA           | 8.75    | 7.65   | 6.86   | 6.15   |
| 181729      | ReliaPro | DCU180025           | 18                         | 250        | 2.1mm x 5.5mm F 2                                      | 2.6 x 2.0 x 1.6   | Black      | 6'                 | 0.6        | UL               | 7.65    | 6.89   | 5.50   | 4.12   |
| 163272      | ReliaPro | DDU180050-2         | 18                         | 500        | 2.1mm x 5.5mm F 2                                      | 2.6 x 2.3 x 1.9   | Black      | 6'                 | 0.8        | UL/CUL           | 10.95   | 9.86   | 8.38   | 6.29   |
| 206958      | ReliaPro | DDU180100           | 18                         | 1000       | 2.5mm x 5.5mm F 2                                      | 3.3 x 2.2 x 1.9   | Black      | 6'                 | 1.4        | UL/CUL           | 10.95   | 9.86   | 7.91   | 5.93   |
| 102285      | ReliaPro | DDU240040           | 24                         | 400        | 2.1mm x 5.5mm F 2                                      | 3.0 x 2.3 x 2.0   | Black      | 6'                 | 0.9        | UL/CUL           | 8.75    | 7.91   | 7.09   | 6.43   |
| 163635      | ReliaPro | DDU240050           | 24                         | 500        | 2.1mm x 5.5mm F 1                                      | 3.1 x 2.3 x 1.9   | Black      | 6'                 | 1.0        | UL/CUL           | 10.85   | 9.75   | 7.77   | 5.84   |
| 191556      | ReliaPro | DDU240050           | 24                         | 500        | 2.5mm x 5.5mm F 2                                      | 3.1 x 2.3 x 1.9   | Black      | 6'                 | 1.0        | UL/CUL           | 9.85    | 8.89   | 7.98   | 6.66   |
| 139088      | ReliaPro | DDU240050           | 24                         | 500        | 3.5mm M 2  | 3.1 x 2.3 x 1.9   | Black      | 6'                 | 1.0        | UL/CUL           | 8.75    | 7.19   | 6.45   | 5.35   |
| 168495      | ReliaPro | DFU240080           | 24                         | 800        | 2.1mm x 5.5mm F 2                                      | 2.9 x 1.9 x 1.6   | Black      | 6'                 | 0.4        | UL/CUL/TUV       | 12.05   | 10.84  | 9.76   | 8.78   |
| 220960      | ReliaPro | DFU240100           | 24                         | 1000       | 2.1mm x 5.5mm F 1                                      | 3.4 x 2.7 x 2.2   | Black      | 6'                 | 1.6        | UL/CUL           | 15.29   | 14.25  | 12.53  | 11.98  |
| 249130      | ReliaPro | AFU240120/G8530     | 24                         | 1200       | 2.1mm x 5.5mm F 1                                      | 3.4 x 2.7 x 2.2   | Black      | 6'                 | 1.7        | UL/CUL           | 17.55   | 16.34  | 14.40  | 13.74  |
| 249121      | ReliaPro | DFU240120/G8520     | 24                         | 1200       | 2.1mm x 5.5mm F 2                                      | 3.4 x 2.7 x 2.2   | Black      | 6'                 | 1.7        | UL/CUL           | 17.55   | 16.34  | 14.40  | 13.74  |
| 249113      | ReliaPro | DFU240120/G8510     | 24                         | 1200       | 2.5mm x 5.5mm F 2                                      | 3.4 x 2.7 x 2.2   | Black      | 6'                 | 1.7        | UL/CUL           | 17.55   | 16.34  | 14.40  | 13.74  |
| 199523      | ReliaPro | DDU300050           | 30                         | 500        | 2.5mm x 5.5mm F 2                                      | 2.9 x 2.3 x 1.9   | Black      | 6'                 | 1.1        | UL/CUL           | 10.95   | 9.86   | 7.89   | 5.92   |
| 215095      | ReliaPro | MW48-4800250        | 48                         | 250        | 2.5mm x 5.5mm F 2                                      | 2.9 x 2.3 x 1.9   | Black      | 6'                 | 1.1        | UL/CUL           | 8.35    | 7.49   | 6.79   | 6.05   |
| 230632      | ReliaPro | MW48-4800250-2.1    | 48                         | 250        | 2.1mm x 5.5mm F 2                                      | 2.9 x 2.3 x 1.9   | Black      | 6'                 | 1.1        | UL/CUL           | 4.89    | 4.39   | 3.99   | 3.67   |
| 215108      | ReliaPro | MW57-4800500        | 48                         | 500        | 2.5mm x 5.5mm F 2                                      | 3.3 x 2.7 x 2.2   | Black      | 6'                 | 1.1        | —                | 11.95   | 10.76  | 9.68   | 8.71   |
| 230640      | ReliaPro | MW57-4800500-2.1    | 48                         | 500        | 2.1mm x 5.5mm F 2                                      | 3.3 x 2.7 x 2.2   | Black      | 6'                 | 1.1        | —                | 11.95   | 10.76  | 8.60   | 6.45   |
| 15309       | ReliaPro | 900-051             | 3, 4.5, 6, 7.5, 9, 12      | 500        | 1.3 x 3.5, 2.1 x 5.0, 2.5 x 5.5 Female                 | 3.0 x 2.2 x 2.1   | Black      | 6'                 | 0.7        | UL/CSA           | 9.49    | 8.54   | 7.69   | 6.92   |
| 123158      | ReliaPro | 900-100             | 1.5, 3, 4.5, 6, 7.5, 9, 12 | 1000       | 2.5, 3.5 Male, 9V battery snap (LED Ind.)              | 3.7 x 2.2 x 2.5   | Black      | 6'                 | 0.9        | None             | 10.95   | 9.86   | 8.87   | 7.98   |

## Other Manufacturers — Great Deals

|         |                   |                  |      |      |                                    |                 |       |    |     |        |        |        |        |        |
|---------|-------------------|------------------|------|------|------------------------------------|-----------------|-------|----|-----|--------|--------|--------|--------|--------|
| 355590  | Southwestern Bell | PS-400           | 12   | 400  | 2.1mm x 5.5mm F 2                  | 2.4 x 1.9 x 1.6 | Black | 6' | 0.6 | UL/CSA | \$4.99 | \$4.49 | \$3.99 | \$3.59 |
| 1537441 | CUI INC.          | KA120D1200450344 | 12   | 450  | 2.1mm x 5.5mm F 2                  | 2.5 x 1.8 x 1.5 | Black | 6' | 0.6 | UL/CUL | 4.49   | 3.95   | 3.49   | 2.95   |
| 695252  | —                 | L4D-120050R      | 12   | 500  | 1.3mm x 3.5mm F 2                  | 2.5 x 2.0 x 1.6 | Black | 6' | 0.6 | UL/CUL | 4.49   | 3.95   | 3.49   | 2.95   |
| 695261  | —                 | L4D-120050R-2.5  | 12   | 500  | 2.5mm x 5.5mm F 2                  | 2.5 x 2.0 x 1.6 | Black | 6' | 0.6 | UL/CUL | 4.49   | 3.95   | 3.49   | 2.95   |
| 695279  | —                 | L4D-120050R-3.5  | 12   | 500  | 3.5mm x 5.5mm F 2                  | 2.5 x 2.0 x 1.6 | Black | 6' | 0.6 | UL/CUL | 4.49   | 3.95   | 3.49   | 2.95   |
| 305103  | —                 | AD1250-5LE       | 12   | 500  | 2.1mm x 5.5mm F 2                  | 2.6 x 1.9 x 1.7 | Black | 6' | 0.6 | UL/CSA | 4.39   | 3.99   | 3.15   | 2.36   |
| 240101  | Broadxent         | AD-121AN         | 12   | 1000 | 2.1mm x 5.5mm F 2                  | 2.8 x 2.2 x 1.9 | Black | 6' | 1.0 | UL/CSA | 6.99   | 6.29   | 5.03   | 3.77   |
| 189579  | Fellowes          | BCU12100         | 12   | 1000 | 2.5mm x 5.5mm right angle F 2      | 3.2 x 2.2 x 1.9 | Black | 6' | 1.0 | UL/CSA | 8.75   | 7.91   | 6.32   | 4.79   |
| 447081  | Technics          | TEAD-48-131000U  | 13.5 | 1000 | 2.1mm x 5.5mm F 2                  | 2.9 x 2.3 x 1.9 | Black | 6' | 1.0 | UL/CUL | 7.99   | 7.08   | 5.75   | 4.31   |
| 129314  | —                 | DV-1250          | 14   | 360  | 2.5mm x 5.5mm right angle F 2      | 2.3 x 2.0 x 1.6 | Black | 6' | 0.6 | UL/CSA | 5.19   | 4.67   | 3.74   | 2.80   |
| 681563  | Ault              | P48151000A020G   | 15   | 1000 | 2.5mm x 5.5mm F 2                  | 3.3 x 2.3 x 1.9 | Black | 6' | 1.2 | UL/CSA | 8.95   | 7.95   | 6.95   | 5.90   |
| 217568  | NiteRider         | FE4126180P040    | 18   | 400  | 2.5mm x 5.5mm F 2 w/ LED indicator | 3.5 x 2.1 x 1.6 | Black | 6' | 0.8 | UL/CUL | 5.99   | 5.39   | 4.31   | 3.23   |
| 206957  | GlobTek           | WD1H1000LCX      | 18   | 1000 | 2.5mm x 5.5mm F 2                  | 3.4 x 2.6 x 2.1 | Black | 6' | 1.4 | None   | 9.95   | 8.96   | 7.16   | 5.37   |
| 404339  | Ault              | P48240500A020G   | 24   | 500  | 2.1mm x 5.5mm F 2                  | 2.5 x 2.3 x 2.0 | Black | 6' | 0.9 | UL/CSA | 7.45   | 5.99   | 5.24   | 4.97   |
| 196322  | 3Com              | P48240600A020G   | 24   | 600  | 2.1mm x 5.5mm F 2                  | 3.3 x 2.3 x 1.9 | Black | 6' | 1.1 | UL/CSA | 8.95   | 8.06   | 7.15   | 5.85   |

† 120 to 220VAC

▲ Brand and cross reference number may vary except for ReliaPro, Mean Well, Pihong and Globtek

⬢ Blue Part No. = Limited Quantity Available

More AC-to-DC Wall Adapters listed on pages 238 - 241

Ⓡ RoHS compliant product

Ⓢ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



# 2-Wire AC Input – AC-to-AC Wall Adapters



We specialize in Wall Adapters – Call for additional OEM PRICING.

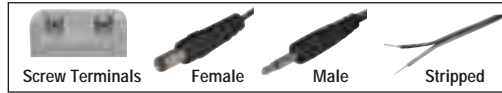
We will change any power plug (pg 162) on any DC wall adapter listed (100 pc. minimum) for a small additional charge.



236814



233293



• Input: 120VAC @ 60Hz • One-year warranty



308718



206421

| Part Number | Brand ▲  | Cross Ref. Number ▲ | Output Rating |              | Output Connector ID x OD Plug Type F = female; M = male | Size H" x W" x D" | Case Color | Output Cord Length | Wt. (lbs.) | Agency Approvals | Pricing |        |        |        |
|-------------|----------|---------------------|---------------|--------------|---|-------------------|------------|--------------------|------------|------------------|---------|--------|--------|--------|
|             |          |                     | Voltage (VAC) | Current (mA) |   |                   |            |                    |            |                  | 1       | 10     | 50     | 100    |
| 249017      | ReliaPro | ACU070150           | 7             | 1500         | 2.5mm x 5.5mm F   | 2.5 x 2.0 x 1.7   | Black      | 6'                 | 0.5        | UL/CSA           | \$5.69  | \$5.15 | \$4.10 | \$3.69 |
| 100061      | ReliaPro | ACU090050           | 9             | 500          | 2.1mm x 5.5mm F   | 2.7 x 1.9 x 1.7   | Black      | 6'                 | 0.6        | UL/CUL           | 5.05    | 4.53   | 3.63   | 2.73   |
| 236814      | ReliaPro | ACU090080           | 9             | 800          | 3.5mm M   | 2.5 x 2.0 x 1.7   | Black      | 6'                 | 0.5        | UL/CUL           | 5.45    | 4.90   | 4.41   | 3.97   |
| 102234      | ReliaPro | ACU090100           | 9             | 1000         | 2.1mm x 5.5mm F   | 3.2 x 2.2 x 1.9   | Black      | 6'                 | 0.6        | UL/CSA           | 6.05    | 5.44   | 4.90   | 4.41   |
| 157041      | ReliaPro | ACU090100           | 9             | 1000         | 2.5mm x 5.5mm F   | 2.1 x 2.1 x 1.6   | Black      | 6'                 | 0.6        | UL/CSA           | 7.65    | 6.89   | 6.20   | 5.58   |
| 112336      | ReliaPro | ACU090150           | 9             | 1500         | 2.5mm x 5.5mm F   | 2.5 x 2.2 x 2.0   | Black      | 6'                 | 0.9        | UL               | 10.95   | 9.86   | 7.89   | 5.92   |
| 101258      | ReliaPro | ACU120050           | 12            | 500          | 2.1mm x 5.5mm F   | 2.5 x 2.0 x 1.7   | Black      | 6'                 | 0.6        | UL/CSA           | 5.05    | 4.54   | 3.71   | 3.28   |
| 10081       | ReliaPro | ACU120100           | 12            | 1000         | 2.1mm x 5.5mm F   | 2.6 x 2.4 x 2.0   | Black      | 6'                 | 0.7        | UL/CSA           | 5.69    | 5.14   | 4.62   | 4.16   |
| 100167      | ReliaPro | A411201000U         | 12            | 1000         | 2.5mm x 5.5mm F   | 3.2 x 2.4 x 2.0   | Black      | 6'                 | 0.7        | UL/CSA           | 4.95    | 4.46   | 3.56   | 2.67   |
| 10428       | ReliaPro | ACU120100           | 12            | 1000         | 3.5mm M   | 2.6 x 2.4 x 2.0   | Black      | 6'                 | 0.6        | UL/CUL           | 5.69    | 5.15   | 4.65   | 4.19   |
| 167151      | ReliaPro | ADU120150           | 12            | 1500         | 2.1mm x 5.5mm F   | 3.4 x 2.7 x 2.2   | Black      | 6'                 | 1.5        | UL/CUL           | 5.45    | 4.94   | 4.39   | 3.69   |
| 307838      | ReliaPro | ADU120160           | 12            | 1600         | 2.5mm x 5.5mm F   | 2.9 x 2.3 x 1.9   | Black      | 6'                 | 1.0        | UL/CUL           | 11.09   | 8.88   | 7.96   | 5.97   |
| 153761      | ReliaPro | ADU120160           | 12            | 1600         | 3.5mm M   | 2.5 x 2.2 x 1.9   | Black      | 6'                 | 0.9        | UL               | 12.05   | 10.84  | 9.76   | 8.78   |
| 171408      | ReliaPro | ACU140050           | 14            | 500          | 2.1mm x 5.5mm F   | 2.8 x 2.0 x 1.6   | Black      | 6'                 | 0.6        | UL/CSA           | 4.95    | 4.44   | 3.55   | 2.66   |
| 318684      | ReliaPro | ACU140085           | 14            | 850          | 2.5mm x 5.5mm right angle F                             | 2.5 x 2.0 x 1.7   | Black      | 6'                 | 0.6        | UL/CUL           | 11.95   | 9.00   | 8.03   | 6.85   |
| 100108      | ReliaPro | ADU160100           | 16            | 1000         | 2.1mm x 5.5mm F   | 2.5 x 2.2 x 1.9   | Black      | 6'                 | 0.9        | UL/CSA           | 8.75    | 7.88   | 6.30   | 4.73   |
| 163053      | ReliaPro | ADU160110           | 16            | 1100         | 2.5mm x 5.5mm F   | 3.2 x 2.3 x 1.8   | Black      | 6'                 | 1.1        | UL/CSA           | 9.85    | 8.79   | 7.25   | 6.55   |
| 121216      | ReliaPro | ADU180100           | 18            | 1000         | 2.1mm x 5.5mm F   | 3.1 x 2.7 x 1.9   | Black      | 6'                 | 1.1        | UL/CUL           | 9.85    | 8.86   | 7.98   | 6.77   |
| 87581       | ReliaPro | ADU240050           | 24            | 500          | 2.1mm x 5.5mm F   | 2.5 x 2.2 x 1.9   | Black      | 6'                 | 0.9        | UL/CSA           | 5.69    | 5.12   | 4.61   | 4.15   |
| 140599      | ReliaPro | ADU240100           | 24            | 1000         | 2.1mm x 5.5mm F   | 3.0 x 2.2 x 1.9   | Black      | 6'                 | 1.2        | UL/CSA           | 9.85    | 8.90   | 7.14   | 5.38   |
| 10102       | ReliaPro | ADU240100           | 24            | 1000         | 3.5mm M   | 3.0 x 2.2 x 1.9   | Black      | 6'                 | 1.2        | UL/CSA           | 8.75    | 7.89   | 7.09   | 5.95   |
| 176356      | ReliaPro | AFU240125           | 24            | 1250         | 2.1mm x 5.5mm F   | 3.4 x 2.7 x 2.2   | Black      | 5'8"               | 1.6        | None             | 11.55   | 10.40  | 9.36   | 8.42   |

## Other Manufacturers — Great Deals

Quantity SAVE

|        |                  |                |    |      |                             |                 |       |      |     |        |        |        |        |        |
|--------|------------------|----------------|----|------|-----------------------------|-----------------|-------|------|-----|--------|--------|--------|--------|--------|
| 210729 | ITE Power Supply | MKA35090300    | 9  | 300  | 2.1mm x 5.5mm F             | 2.2 x 1.7 x 1.5 | Black | 6'   | 0.4 | UL/CUL | \$3.95 | \$3.55 | \$2.84 | \$2.13 |
| 249295 | Pacrim           | 41A-9-700      | 9  | 700  | 2.5mm x 5.5mm F             | 2.3 x 2.0 x 1.7 | Black | 6'   | 0.6 | UL/CSA | 4.39   | 3.95   | 3.56   | 2.67   |
| 233293 | Horizon          | ACU090080      | 9  | 800  | 2.1mm x 5.5mm F             | 2.5 x 2.0 x 1.7 | Black | 6'   | 0.6 | UL     | 5.15   | 4.64   | 3.71   | 2.78   |
| 320258 | Ault             | T48091500A010G | 9  | 1500 | 2.5mm x 5.5mm F             | 2.5 x 2.2 x 2.0 | Black | 6'   | 0.9 | UL/CSA | 8.95   | 8.05   | 6.44   | 4.83   |
| 217550 | Frino            | FW6798         | 9  | 1900 | Stripped and tinned         | 2.8 x 2.5 x 2.0 | Black | 6'8" | 1.1 | UL/CSA | 5.95   | 5.36   | 4.28   | 3.21   |
| 688634 | —                | PP-1012-A      | 10 | 1200 | 2.5mm x 5.5mm F             | 3.5 x 2.5 x 1.9 | Black | 6'   | 1.3 | UL     | 5.95   | 5.35   | 4.75   | 3.95   |
| 285069 | Shogyo           | DV-1283        | 12 | 830  | 2.5mm x 5.5mm F             | 2.8 x 2.0 x 1.6 | Black | 6'   | 0.6 | UL/CSA | 4.95   | 4.45   | 3.56   | 2.67   |
| 206404 | MG Electronics   | MGT1220        | 12 | 1670 | Screw terminals             | 3.2 x 2.2 x 1.9 | White | —    | 0.9 | UL/CSA | 6.95   | 6.29   | 5.65   | 5.09   |
| 210737 | ITE Power Supply | PPI-1212UL     | 13 | 1200 | 2.1mm x 5.5mm F             | 3.3 x 2.4 x 2.0 | Black | 6'   | 0.9 | UL/CUL | 4.95   | 4.49   | 3.59   | 2.69   |
| 421585 | JBL Inc          | A12-1A-01      | 14 | 850  | 2.5mm x 5.5mm F             | 2.5 x 1.9 x 1.6 | White | 6'   | 0.6 | UL/CSA | 5.55   | 5.00   | 4.00   | 3.00   |
| 185439 | Ault             | T5182200-A020G | 18 | 1850 | 2.1mm x 5.5mm right angle F | 3.3 x 2.7 x 2.2 | Black | 6'   | 1.7 | None   | 8.25   | 7.42   | 5.94   | 4.46   |
| 308718 | Comtrend         | ACU-190051     | 19 | 510  | 2.5mm x 5.5mm right angle F | 2.5 x 2.0 x 1.7 | Black | 6'   | 0.6 | UL/CUL | 3.29   | 2.99   | 2.75   | 2.45   |
| 206421 | MG Electronics   | MGT2410        | 24 | 420  | Screw terminals             | 2.5 x 2.0 x 1.7 | White | —    | 0.6 | UL/CSA | 6.49   | 5.84   | 5.26   | 4.73   |
| 206439 | MG Electronics   | MGT2420        | 24 | 830  | Screw terminals             | 3.2 x 2.2 x 1.9 | White | —    | 0.9 | UL/CSA | 7.19   | 6.49   | 5.85   | 5.25   |

▲ Brand and cross reference number may vary except for ReliaPro, Mean Well, Pihong and Globtek

Blue Part No. = Limited Quantity Available

### AC-to-AC Table-Top Step-Down Adapter

- Input voltage: 120VAC @ 60Hz
- Output current: 4.0A
- Output plug: 2.1mm (ID) x 5.5mm (OD) female
- Attached AC cord
- Agency approvals: CSA
- Size: 3.7"L x 2.9"W x 2.5"H
- Output volts: 16VAC
- Output watts: 64W
- Cord (AC/AC): 6'/6'
- Color: black
- Weight: 2.8 lbs.

**Quantity SAVE**

| Part No. | Manufacturer | Product Number | 1       | 10      | 50     |
|----------|--------------|----------------|---------|---------|--------|
| 176604   | Jameco       | TA661640       | \$14.25 | \$12.11 | \$9.08 |

### Wall Adapter Enclosures

- Enclosures include 3-prong power plug and cable strain relief
- Size: 3.4"H x 2.7"W x 2.3"D
- Material: noryl • Color: black

| Part No. | Style      | 1      | 10     | 100    |
|----------|------------|--------|--------|--------|
| 115052   | Non-vented | \$2.25 | \$1.95 | \$1.69 |
| 115043   | Vented     | 2.59   | 2.20   | 1.65   |

Save Big! Special Values!

Sale Priced Items = Yellow  
Exceptional Quantity Discounts = Green

# International Step-Up & Step-Down Transformers

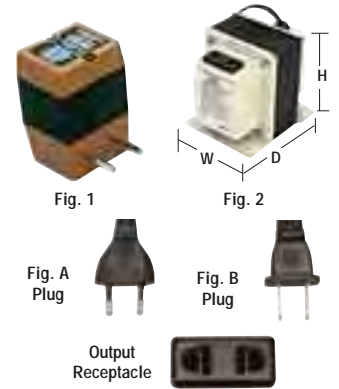
Color Code Legend  
New Sale Lower\$ QtySave

• Wide selection to meet your power requirements

Quantity SAVE

| Part Number | Cross Ref. Number* | Fig. | Type      | Primary Voltage | Secondary Voltage | Power (VA) | H"   | W"   | D"   | Wt. (lbs.) | 1      | 10     | 100    |
|-------------|--------------------|------|-----------|-----------------|-------------------|------------|------|------|------|------------|--------|--------|--------|
| 99573       | AC110V50           | 1/A  | Auto      | 220VAC          | 110VAC            | 50         | 2.50 | 1.63 | 1.33 | 0.7        | \$9.95 | \$8.99 | \$8.09 |
| 85016       | AC110V300          | 2/A  | Auto      | 220VAC          | 110VAC            | 300        | 3.50 | 3.05 | 3.95 | 4.8        | 27.95  | 24.90  | 18.63  |
| 111851      | AC110V500          | 2/A  | Auto      | 220VAC          | 110VAC            | 500        | 3.99 | 3.60 | 4.84 | 8.5        | 34.95  | 31.49  | 29.98  |
| 221250      | GSD-1000           | 2/A  | Auto      | 220VAC          | 110VAC            | 1000       | 4.63 | 3.81 | 6.06 | 17.0       | 59.95  | 50.96  | 38.22  |
| 142906      | AC110V1500         | 2/A  | Auto      | 220VAC          | 110VAC            | 1500       | 5.25 | 4.50 | 5.75 | 15.2       | 79.95  | 67.96  | 55.63  |
| 99477       | AC220V50           | 1/B  | Auto      | 110VAC          | 220VAC            | 50         | 2.50 | 1.63 | 1.33 | 0.7        | 8.95   | 8.09   | 7.25   |
| 85008       | AC220V300          | 2/B  | Auto      | 110VAC          | 220VAC            | 300        | 3.50 | 3.05 | 3.95 | 4.8        | 27.95  | 24.90  | 22.40  |
| 221217      | P8689              | 2/B  | Auto      | 110VAC          | 220VAC            | 1000       | 4.63 | 3.75 | 6.13 | 17.0       | 65.05  | 60.43  | 48.02  |
| 221313      | G1SD-500           | 2/A  | Isolation | 220VAC          | 110VAC            | 500        | 4.69 | 3.75 | 6.00 | 16.0       | 89.95  | 76.46  | 57.35  |
| 222092      | G1SD-1000          | 2/A  | Isolation | 220VAC          | 110VAC            | 1000       | 5.38 | 4.38 | 8.13 | 31.0       | 149.95 | 127.46 | 95.60  |
| 221331      | G1S-500            | 2/B  | Isolation | 110VAC          | 110VAC            | 500        | 4.69 | 3.75 | 6.00 | 16.0       | 78.95  | 67.11  | 50.33  |

\* Manufacturer may vary



## Fixed & Variable Power Transformers

### 6VAC/9VAC Dual Output Power Transformer

12VA

- Input voltage: 120VAC
- Output voltage: 6VAC @ 500mA center tap (blue wires); 9VAC @ 1A center tap (yellow wires)
- Size: 2.1"L x 2.6"W x 2.0"H • Weight: 1.3 lbs.

| Part No. | Cross Ref. No. | 1      | 10     | 100    |
|----------|----------------|--------|--------|--------|
| 183089   | YS57H-099FAA   | \$4.29 | \$3.65 | \$2.74 |



### 320VA Variable AC Transformer

- Input voltage: 110VAC @ 50-60Hz
- Matching input/output terminals: P/N 103668 and 109112 (disconnect .25" solderless terminals), pg 162
- Maximum current: 2.5A
- Shaft length: 0.5"
- Size: 2.8"Dia. x 2.1"H
- Weight: 2.5 lbs.
- Panel mount
- One-year warranty

Includes: 3 disconnect .25" solderless terminals

| Part No. | Description    | 1       | 10      | 50      |
|----------|----------------|---------|---------|---------|
| 149324   | 320VA variable | \$53.95 | \$48.59 | \$43.75 |



### 110/220VAC Variable Transformers

- Input: 110VAC or 220VAC
- Power: 500, 1000 or 2000VA
- Output: 0-240VAC
- Banana/screw input terminals
- Universal US/ European output plugs
- Lighted on/off power switch

| Part No. | Fuse                 | Size (L" x W" x H") | Wt. (lbs.) |
|----------|----------------------|---------------------|------------|
| 121276   | 3A/250V (P/N 69438)  | 5.3 x 7.3 x 7.0     | 10.4       |
| 129008   | 5A/250V (P/N 10401)  | 9.4 x 6.5 x 7.7     | 14.8       |
| 152581   | 10A/250V (P/N 69462) | 9.0 x 7.0 x 7.7     | 19.8       |



### EMI Suppression Cores with Case

Reduce Electromagnetic Interference (EMI) with a snap of these suppression cores around a power cord or data cord. Easy to install and an affordable way to reduce EMI without redesigning your product.



Quantity SAVE

Round

| Part No. | Size (OutDia. x InDia. x L) | 1      | 10     | 100    |
|----------|-----------------------------|--------|--------|--------|
| 218173   | .64" x .20" x 1.15"         | \$ .99 | \$ .89 | \$ .79 |
| 217841   | .78" x .34" x 1.40"         | 1.45   | 1.29   | 1.15   |
| 318705   | .82" x .45" x 1.42"         | 1.19   | .99    | .74    |

Square

| Part No. | Size (L" x W" x H")      | 1      | 10     | 100    |
|----------|--------------------------|--------|--------|--------|
| 421681   | 1.30 x .70 x .77 (black) | \$1.85 | \$1.57 | \$1.18 |

### 550VA Variable AC Transformer

- Input voltage: 110VAC @ 60Hz
- Output voltage: 0-140VAC
- Rated current: 5A
- Panel mount
- Input/output terminals: binding post with 0.188" diameter post
- Size: 4.3"Dia. x 4.0"H
- Weight: 6.8 lbs.
- One-year warranty

| Part No. | Description    | 1       | 10      | 50      |
|----------|----------------|---------|---------|---------|
| 152937   | 550VA variable | \$62.95 | \$53.51 | \$47.88 |



Over 99% of Our Catalog Products Are In Stock

Place your order by 6PM EST for same business-day shipment.

### 120VAC to 120VAC Isolation Transformer

300VA

- Input voltage: 120VAC @ 60Hz
- Input connector: 5.5" cord with 2-prong plug
- Output voltage: 120VAC @ 2.5A (isolated)
- Size: 4.2"H x 3.2"W x 4.6"D
- Weight: 7.0 lbs.

| Part No. | Cross Ref. No. | 1       | 10      | 100     |
|----------|----------------|---------|---------|---------|
| 181315   | ITR300         | \$47.19 | \$40.12 | \$30.09 |



## Current Sensing Transformers

### Current Sensing Transformers

Current sense transformers are used to detect current passing through a conductor. These transformers are very reliable and operate effectively over the frequency range of 20kHz - 200kHz. Constructed of UL rated 130°C materials.

- Primary is inserted through hole in casing
- Rated primary current renders approximately 40°C temperature rise
- Arrow side of primary conductor has same polarity as pin #1

Lower \$\$\$

| Part No. | Product No. | ET Vpsec Ref. 20kHz | Turns Count | Min. Ind. (mH) | DCR Max. (Ω) | Primary Arms | 1      | 10     | 25     |
|----------|-------------|---------------------|-------------|----------------|--------------|--------------|--------|--------|--------|
| 627641   | CST306-1A   | 500                 | 20          | 3.5            | 0.34         | 35           | \$3.99 | \$3.26 | \$2.90 |
| 627647   | CST306-2T   | 1000                | 100CT       | 14             | 1.55         | 25           | 4.69   | 4.44   | 2.92   |

\*CT = center tap

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ RoHS compliant product • This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

### Class 1 Current Transformer

- Maximum voltage: 660VAC
- Frequency: 50-60Hz
- Size: 2.95"W x 1.70"D x 3.36"H
- Weight: 1.1 lbs.

Includes: Mounting bracket and hardware

SALE

| Part No. | Cross Ref. No. | Power | Ratio        | 1      | 10     | 100    |
|----------|----------------|-------|--------------|--------|--------|--------|
| 174887   | MSQ30          | 5VA   | 200A/5A: 5VA | \$3.69 | \$3.34 | \$3.00 |



### Current Sensing Transformer

- Inductance: 5mH
- Sensitivity current (I<sub>in</sub>): 1A
- Freq. range: 10-50 kHz
- Terminating resistor: 50Ω
- Turns: 60
- Max. current: 300mA
- Sensitivity voltage (V<sub>out</sub>): 1V
- Size: 0.7"W x 0.46"D x 0.8"H

Quantity SAVE

| Part No. | Cross Ref. No. | 1      | 10     | 100    |
|----------|----------------|--------|--------|--------|
| 164718   | MTC30101       | \$2.15 | \$1.83 | \$1.37 |

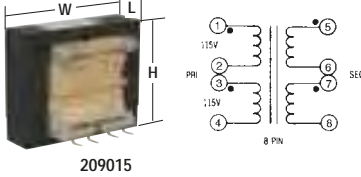


## Split-Bobbin Power Transformers

Quantity SAVE

Non-concentrically wound with primaries and secondaries side-by-side providing low capacitive coupling.

- Primary: 115/230VAC, 50-60Hz
- PC terminal pin spacing for accurate placement

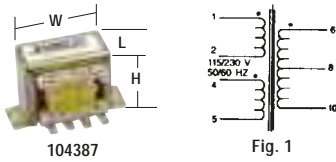


| Part No. | Cross Ref. No. | Triad Cross* | Input Voltage | VA   | Individual Output | Parallel Output | Series Output  | Dimensions |      |      | Wt. (lbs.) | Pricing |        |        |
|----------|----------------|--------------|---------------|------|-------------------|-----------------|----------------|------------|------|------|------------|---------|--------|--------|
|          |                |              |               |      |                   |                 |                | L"         | W"   | H"   |            | 1       | 10     | 100    |
| 221292   | DSW-312        | FS12200      | 115/230       | 2.5  | 6.3V @ .20A       | 6.3V @ .40A     | 12.6VCT @ .20A | 1.38       | 1.13 | 1.19 | 0.3        | \$5.25  | \$4.46 | \$3.35 |
| 102534   | XFR1205SB      | FS12500      | 115/230       | 6.3  | 6.3V @ .50A       | 6.3V @ 1.0A     | 12.6VCT @ .50A | 1.32       | 1.64 | 1.38 | 0.4        | 7.95    | 7.16   | 6.44   |
| 210956   | DST2-24-845    | —            | 115/230       | 1.1  | 12V @ .045A       | 12V @ .09A      | 24VCT @ .045A  | 1.17       | 1.40 | 0.95 | 0.2        | 6.49    | 5.52   | 4.14   |
| 176090   | SPT41240-120   | FS24250      | 115/230       | 6.0  | 12V @ .25A        | 12V @ .50A      | 24VCT @ .25A   | 1.32       | 1.63 | 1.40 | 0.5        | 5.95    | 5.25   | 4.59   |
| 102592   | XFR2405SB      | FS24500      | 115/230       | 12.0 | 12V @ .50A        | 12V @ 1.0A      | 24VCT @ .50A   | 1.58       | 1.90 | 1.46 | 0.7        | 8.79    | 7.95   | 5.49   |
| 148559   | XFR3603SB      | FS36350      | 115/230       | 12.6 | 18V @ .35A        | 18V @ .70A      | 36VCT @ .35A   | 1.59       | 1.91 | 1.46 | 0.7        | 7.49    | 6.69   | 6.05   |
| 209015   | ST-6-48        | —            | 115           | 19.2 | 24V @ .40A        | 24V @ .80A      | 48VCT @ .40A   | 1.88       | 2.25 | 1.40 | 0.8        | 2.59    | 2.32   | 2.11   |

\* Triad cross is for reference only

## Quick-Connect Power Transformers

- Quick-connect transformers are bobbin wound for smaller size and reduced electrostatic shielding requirements
- Input voltage: 115/230VAC, 50-60Hz • Terminals: quick-connect, solder



| Part No. | Cross Ref. No. | Triad Cross* | Fig. | Input Voltage | Output Voltage | VA   | Size of Connect | Dimensions |      |      | Wt. (lbs.) | Pricing |        |        |
|----------|----------------|--------------|------|---------------|----------------|------|-----------------|------------|------|------|------------|---------|--------|--------|
|          |                |              |      |               |                |      |                 | L"         | W"   | H"   |            | 1       | 10     | 100    |
| 104387   | XFR1225Q       | FD612        | 1    | 115/230VAC    | 12.6VCT @ 2.5A | 31.5 | 0.141"          | 2.21       | 2.32 | 2.00 | 1.3        | \$9.29  | \$7.90 | \$5.92 |
| 104409   | XFR1635Q       | FD716        | 1    | 115/230VAC    | 16VCT @ 3.5A   | 56.0 | 0.141"          | 2.25       | 2.68 | 2.33 | 1.8        | 12.95   | 11.01  | 8.26   |
| 101865   | XFR2424Q       | FD724        | 1    | 115/230VAC    | 24VCT @ 2.4A   | 57.6 | 0.141"          | 2.10       | 2.70 | 2.29 | 1.7        | 11.95   | 10.16  | 7.62   |
| 104417   | XFR3615Q       | FD736        | 1    | 115/230VAC    | 36VCT @ 1.5A   | 54.0 | 0.141"          | 2.30       | 2.70 | 2.30 | 1.8        | 9.95    | 8.96   | 6.72   |

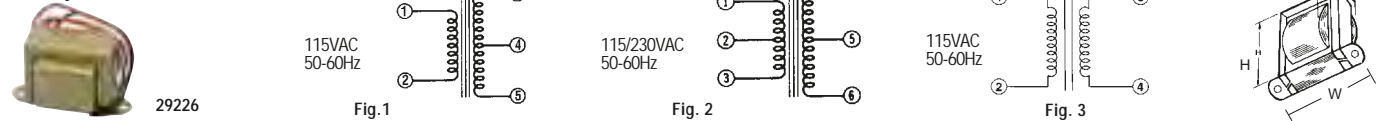
↑ Terminal solder lug are on same side

\* Triad cross is for reference only

## 115VAC and 115/230VAC Power Transformers

Power transformers have both single and dual-voltage input and center-tapped outputs. This makes them the perfect choice for power supply design or for use in transformer, rectifier and filter circuits.

- Primary: 115VAC or 115/230VAC, 50-60Hz



|          | Cross    | Triad  | Primary    |         |        |       | Secondary     |        |            |        | Lead | Fig. | Dimensions |      |      | Wt.    | Pricing |        |        |
|----------|----------|--------|------------|---------|--------|-------|---------------|--------|------------|--------|------|------|------------|------|------|--------|---------|--------|--------|
| Part No. | Ref. No. | Cross# | Color Code |         |        | VA    | Voltage       |        | Color Code |        | Type |      | L"         | W"   | H"   | (lbs.) | 1       | 10     | 100    |
| 102162   | XFR6102  | F314X  | Black      | Yellow* | Red    | 7.6   | 6.3VCT @ 1.2A | White  | Black*     | White  | Wire | 2    | 1.84       | 2.40 | 1.67 | 0.8    | \$8.49  | \$7.22 | \$5.41 |
| 105524   | XFR0910  | —      | Black      | White*  | Red    | 9.0   | 9VCT @ 1A     | Blue   | Black*     | Blue   | Wire | 2    | 1.82       | 2.43 | 1.67 | 0.7    | 6.95    | 5.91   | 4.43   |
| 221399   | P-8657   | F218X  | Black      | —       | Black  | 24.0  | 12VAC @ 2A    | White  | —          | White  | Wire | 3    | 1.89       | 2.75 | 1.99 | 1.3    | 9.15    | 7.78   | 5.84   |
| 221356   | P-8658   | F219X  | Black      | —       | Black  | 48.0  | 12VAC @ 4A    | White  | —          | White  | Wire | 3    | 2.25       | 4.00 | 2.63 | 2.3    | 12.95   | 11.95  | 9.95   |
| 29226    | XFR122   | F44X   | Yellow     | —       | Yellow | 25.2  | 12.6VCT @ 2A  | Blue   | Red*       | Black  | Wire | 1    | 2.41       | 2.79 | 1.99 | 1.5    | 9.95    | 8.99   | 7.99   |
| 102154   | XFR1220  | F344X  | Black      | Yellow* | Red    | 25.2  | 12.6VCT @ 2A  | White  | Black*     | White  | Wire | 2    | 2.35       | 2.32 | 1.97 | 1.5    | 10.95   | 9.81   | 7.33   |
| 149770   | XFR1240  | F3181U | Black      | Red*    | Yellow | 50.4  | 12.6VCT @ 4A  | White  | Black*     | White  | Wire | 2    | 2.45       | 3.20 | 2.25 | 2.2    | 12.95   | 11.69  | 10.49  |
| 102120   | XFR124   | F181U  | Black      | —       | Black  | 50.4  | 12.6VCT @ 4A  | White  | Black*     | White  | Wire | 1    | 2.45       | 3.21 | 2.26 | 2.7    | 12.95   | 11.69  | 10.49  |
| 105532   | XFR1810  | —      | Blue       | Red*    | Black  | 18.0  | 18VCT @ 1A    | Yellow | Black*     | Yellow | Wire | 2    | 2.20       | 2.81 | 1.99 | 1.2    | 6.95    | 6.26   | 5.31   |
| 149957   | XFR1820  | —      | Black      | Red*    | Yellow | 36.0  | 18VCT @ 2A    | White  | Black*     | White  | Wire | 2    | 2.25       | 3.15 | 2.71 | 1.8    | 8.95    | 7.95   | 6.95   |
| 221381   | P8396    | —      | Black      | —       | Black  | 9.6   | 24VCT @ 0.4A  | White  | Black*     | White  | Wire | 1    | 1.63       | 2.80 | 1.97 | 0.6    | 7.65    | 6.88   | 6.19   |
| 102112   | XFR2410  | F346X  | Black      | Yellow* | Red    | 24.0  | 24VCT @ 1A    | White  | Black*     | White  | Wire | 2    | 2.41       | 2.80 | 1.99 | 1.5    | 8.95    | 7.61   | 5.71   |
| 221373   | P-8662   | F192X  | Black      | —       | Black  | 48.0  | 24VCT @ 2A    | White  | Black*     | White  | Wire | 1    | 2.14       | 3.16 | 2.27 | 2.3    | 11.95   | 10.16  | 7.62   |
| 112512   | XFR242N  | F229X  | Black      | —       | Black  | 48.0  | 24VAC @ 2A    | White  | —          | White  | Wire | 3    | 2.33       | 3.16 | 2.28 | 1.8    | 10.35   | 9.39   | 8.49   |
| 221364   | P-8663   | F193U  | —          | —       | —      | 96.0  | 24VCT @ 4A    | —      | —          | —      | Lug  | 1    | 2.81       | 2.94 | 4.00 | 4.0    | 22.55   | 21.19  | 17.79  |
| 221410   | P-8666   | F226U  | —          | —       | —      | 288.0 | 24VCT @ 12A   | —      | —          | —      | Lug  | 1    | 4.63       | 3.75 | 4.63 | 11.2   | 45.95   | 41.85  | 38.17  |
| 99653    | XFR242   | —      | Red        | —       | Red    | 49.2  | 24.6VCT @ 2A  | Blue   | Yellow*    | Blue   | Wire | 1    | 2.44       | 3.22 | 2.30 | 2.5    | 11.95   | 10.35  | 7.99   |
| 102103   | XFR2520  | F341X  | Black      | White*  | Red    | 50.4  | 25.2VCT @ 2A  | Orange | Black*     | Orange | Wire | 2    | 2.45       | 3.22 | 2.26 | 2.8    | 14.95   | 13.40  | 12.10  |
| 149796   | XFR2820  | F3185U | Black      | Red*    | Yellow | 56.0  | 28VCT @ 2A    | White  | Black*     | White  | Wire | 2    | 2.45       | 3.22 | 2.26 | 2.3    | 13.95   | 12.85  | 9.64   |

† Solder terminals

\* Center tap

# Triad cross is for reference only

• Blue Part No. = Limited Quantity Available

## TRIAD Low Frequency Current Sensing Transformer

Designed to monitor current in low frequency applications. May be used to monitor current from 0.1A to 30A @ frequencies from 50Hz to 400Hz.

- Turns ratio: primary to sense – 1:500
- Typical output: 110mV/amp
- Suggested burden resistor: 60Ω
- Constructed with UL recognized materials

- Hi-pot: 500V
- Sense DCR: 21Ω max.
- Primary DCR: 250μΩ max.

| Part No. | Product No. | Description                 | 1      | 10     | 100    |
|----------|-------------|-----------------------------|--------|--------|--------|
| 627591   | CSE187L     | Current sensing transformer | \$2.09 | \$1.81 | \$1.66 |

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

• RoHS compliant product

• This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

Color Code Legend  
New Sale Lower\$ QtySave

## TRIAD Split Bobbin Transformers

- High-pot tested @ 2500Vrms
- 6-pin
- UL recognized
- Primary: 115/230VAC, 50-60Hz



| Part No. | Prod. No. | VA | Secondary    |            | Dimensions<br>H" x W" x L" | Pricing |        |        |
|----------|-----------|----|--------------|------------|----------------------------|---------|--------|--------|
|          |           |    | Series       | Parallel   |                            | 1       | 10     | 100    |
| 628308   | F24-1500  | 36 | 24VCT @ 1.5A | 12V @ 3.0A | 0.29x2.29x2.63             | \$14.55 | \$9.88 | \$9.08 |
| 628316   | F24-800   | 20 | 24VCT @ 0.8A | 12V @ 1.6A | 1.06x1.88x2.25             | 11.25   | 7.60   | 7.09   |





## Chassis Mount — Quick Pack

- Hi-pot tested at 2,500Vrms
- Terminal size: 0.187" x 0.021"
- Mounting hole size: 3/16" • CT = center tap

### Single Primary = 115V

| Part No. | Prod. No. | Circuit | Pwr. (W) | Output         | Dimensions (L" x W" x H") | Price  |        |        |
|----------|-----------|---------|----------|----------------|---------------------------|--------|--------|--------|
|          |           |         |          |                |                           | 1      | 10     | 100    |
| 628771   | F4-24     | B       | 6        | 24VCT @ 0.25A  | 2.38 x 1.25 x 1.38        | \$6.95 | \$5.93 | \$5.39 |
| 628893   | F5-16     | B       | 12       | 16VCT @ 0.8A   | 2.81 x 1.38 x 1.63        | 7.59   | 5.95   | 5.51   |
| 628922   | F5-35     | B       | 12       | 36VCT @ 0.35A  | 2.81 x 1.38 x 1.94        | 7.59   | 6.59   | 5.90   |
| 629079   | F6-24     | C       | 30       | 24VCT @ 1.25A  | 3.25 x 1.69 x 1.94        | 10.29  | 8.97   | 8.03   |
| 629061   | F6-120    | C       | 30       | 120VCT @ 0.25A | 3.25 x 1.69 x 1.94        | 11.89  | 8.83   | 8.03   |
| 629132   | F7-12     | C       | 56       | 12.6VCT @ 4A   | 3.69 x 1.81 x 2.25        | 14.29  | 12.48  | 11.17  |
| 629167   | F7-24     | C       | 56       | 24VCT @ 2.4A   | 3.69 x 1.81 x 2.25        | 14.29  | 12.48  | 11.17  |
| 618687   | F8-16     | E       | 100      | 16VCT @ 6.25A  | 4.03 x 2.25 x 2.56        | 20.55  | 18.05  | 16.15  |
| 618695   | F8-20     | C       | 100      | 20VCT @ 5A     | 4.03 x 2.25 x 2.56        | 20.55  | 19.13  | 16.04  |
| 618708   | F8-24     | C       | 100      | 24VCT @ 4A     | 4.03 x 2.25 x 2.56        | 20.55  | 18.05  | 16.15  |
| 618716   | F8-36     | C       | 100      | 36VCT @ 2.8A   | 4.03 x 2.25 x 2.56        | 18.19  | 15.83  | 15.50  |

### Dual Primary = 115/230V

| Part No. | Prod. No. | Circuit | Pwr. (W) | Output         | Dimensions (L" x W" x H") | Price  |        |        |
|----------|-----------|---------|----------|----------------|---------------------------|--------|--------|--------|
|          |           |         |          |                |                           | 1      | 10     | 100    |
| 629191   | FD4-12    | D       | 6        | 12.6VCT @ 0.5A | 2.38 x 1.25 x 1.38        | \$8.45 | \$7.35 | \$6.58 |
| 629212   | FD4-28    | D       | 6        | 28VCT @ 0.2A   | 2.38 x 1.25 x 1.38        | 6.75   | 6.41   | 5.88   |
| 629280   | FD5-16    | D       | 12       | 16VCT @ 0.8A   | 2.81 x 1.38 x 1.63        | 9.35   | 8.14   | 7.29   |
| 629301   | FD5-24    | D       | 12       | 24VCT @ 0.5A   | 2.81 x 1.38 x 1.94        | 9.35   | 7.62   | 7.03   |
| 629319   | FD5-28    | D       | 12       | 28VCT @ 0.42A  | 2.81 x 1.38 x 1.63        | 10.79  | 8.01   | 7.29   |
| 629351   | FD6-10    | E       | 30       | 10VCT @ 3A     | 3.25 x 1.69 x 1.94        | 13.99  | 9.50   | 8.81   |
| 629378   | FD6-20    | E       | 30       | 20VCT @ 1.5A   | 3.25 x 1.69 x 1.94        | 13.99  | 9.50   | 8.81   |
| 629407   | FD6-56    | E       | 30       | 56VCT @ 0.54A  | 3.25 x 1.69 x 2.31        | 13.99  | 10.38  | 9.44   |
| 618775   | FD8-24    | E       | 100      | 24VCT @ 4A     | 4.03 x 2.25 x 2.56        | 21.65  | 20.14  | 17.73  |
| 618783   | FD8-28    | E       | 100      | 28VCT @ 3.6A   | 4.03 x 2.25 x 2.56        | 21.65  | 20.14  | 17.73  |

## Chassis Mount — Control

- Hi-pot tested at 1,500Vrms
- Terminal: solder lugs
- Secondaries may be connected in series or parallel for expanded voltage and current ranges
- Commonly utilized in various electronics, electromagnetic, & electrical control applications

| Part No. | Prod. No. | Pwr. (W) | Secondary |           | Case Type | Dimensions (H" x W" x D") | Price   |         |         |
|----------|-----------|----------|-----------|-----------|-----------|---------------------------|---------|---------|---------|
|          |           |          | Series    | Parallel  |           |                           | 1       | 10      | 100     |
| 618345   | F-105Z    | 12       | 12VCT@1A  | 6V @ 2A   | Z         | 2.38 x 2.88 x 1.25        | \$15.15 | \$14.41 | \$13.06 |
| 618353   | F-109U    | 192      | 24VCT@8A  | 12V @ 16A | U         | 4.29 x 3.44 x 3.56        | 48.19   | 42.91   | 37.65   |

## Chassis Mount — Single Secondary

- CT = center tap • Connectors: leads
- Mounting holes: X type case – 3/16"; U type case – 13/64" x 3/8"

| Part No. | Prod. No. | Primary Voltage | Secondary Voltage | Case Type | Dimensions (H" x W" x D") | Price   |        |        |
|----------|-----------|-----------------|-------------------|-----------|---------------------------|---------|--------|--------|
|          |           |                 |                   |           |                           | 1       | 10     | 100    |
| 628463   | F-313X    | 115/230         | 6.3V @ 0.6A       | X         | 1.38 x 2.38 x 1.38        | \$12.55 | \$9.31 | \$8.47 |
| 627719   | F-113X    | 115             | 12V @ 0.15A       | X         | 1.38 x 2.38 x 1.38        | 7.95    | 5.40   | 5.18   |
| 627727   | F-114X    | 115             | 12V @ 0.7A        | X         | 1.63 x 2.81 x 1.63        | 8.65    | 5.82   | 5.43   |
| 618450   | F-221U    | 115             | 12V @ 8A          | U         | 3.81 x 3.13 x 2.38        | 21.99   | 18.71  | 15.44  |
| 628818   | F-44X     | 115             | 12.6VCT @ 2A      | X         | 1.94 x 3.31 x 2.00        | 11.29   | 8.86   | 8.26   |
| 628287   | F-225X    | 115             | 12.6V @ 4A        | X         | 2.63 x 4.00 x 2.06        | 15.15   | 12.23  | 11.36  |
| 618370   | F-182U    | 115             | 12.6VCT @ 6A      | U         | 3.38 x 2.81 x 2.44        | 41.79   | 35.09  | 28.39  |
| 627743   | F-116X    | 115             | 24VCT @ 0.2A      | X         | 1.38 x 2.38 x 1.25        | 12.85   | 8.74   | 8.09   |
| 628560   | F-345X    | 115/230         | 24VCT @ 1A        | X         | 1.94 x 3.31 x 2.00        | 12.79   | 10.47  | 10.02  |
| 618548   | F-260U    | 115             | 24VCT @ 6A        | U         | 3.25 x 3.13 x 3.25        | 37.69   | 25.09  | 23.74  |
| 628720   | F-40X     | 115             | 26.8VCT @ 1A      | X         | 1.81 x 3.31 x 2.00        | 9.85    | 8.05   | 7.70   |
| 628359   | F-270U    | 115             | 40VCT @ 1A        | U         | 2.56 x 4.00 x 2.25        | 19.95   | 14.81  | 13.46  |



X Type Case



U Type Case

## Power Transformers



## Chassis Mount — World Series

- High pot tested @ 4,000Vrms
- Primary: 115V/230V, 50/60Hz
- Mounting hole size: 13/64" x 3/8" • CT = center tap
- Both primary and secondary coils may be connected as either series or parallel, but both must be used simultaneously



| Part No. | Product No. | Pwr. (W) | Secondary     |            | Dimensions (H" x W" x D") | Price   |         |         |
|----------|-------------|----------|---------------|------------|---------------------------|---------|---------|---------|
|          |             |          | Series        | Parallel   |                           | 1       | 10      | 100     |
| 619022   | VPS10-17500 | 175      | 10VCT @ 17.5A | 5V @ 35A   | 3.75 x 3.13 x 2.81        | \$33.49 | \$25.83 | \$23.40 |
| 619057   | VPS16-8100  | 130      | 16VCT @ 8.1A  | 8V @ 16.2A | 3.38 x 2.81 x 2.69        | 29.19   | 22.49   | 20.38   |

## PC Mount — World Series

- Primary: 115/230V; 50/60Hz
- Hi-pot tested at 4,000Vrms
- CT = center tap
- Both primary and secondary coils may be connected as either series or parallel, but both must be used simultaneously



| Part No. | Product No. | Pwr. (W) | Secondary     |             | Pin Diameter | Dimensions (H" x W" x D") | Price   |        |        |
|----------|-------------|----------|---------------|-------------|--------------|---------------------------|---------|--------|--------|
|          |             |          | Series        | Parallel    |              |                           | 1       | 10     | 100    |
| 630571   | VPP10-1000  | 10       | 10VCT @ 1A    | 5V @ 2A     | 0.036" sq.   | 1.63 x 1.88 x 1.56        | \$11.05 | \$7.50 | \$6.95 |
| 630580   | VPP10-2000  | 20       | 10VCT @ 2A    | 5V @ 4A     | 0.036" sq.   | 1.63 x 2.25 x 1.88        | 13.45   | 9.12   | 8.45   |
| 630660   | VPP16-310   | 5        | 16VCT @ 0.31A | 8V @ 0.062A | 0.025" sq.   | 1.38 x 1.63 x 1.31        | 9.85    | 6.69   | 5.94   |
| 630678   | VPP20-1500  | 30       | 20VCT @ 1.5A  | 10V @ 3A    | 0.045" sq.   | 1.56 x 2.63 x 1.29        | 15.45   | 10.53  | 9.31   |
| 630723   | VPP24-210   | 5        | 24VCT @ 0.21A | 12V @ 0.42A | 0.025" sq.   | 1.38 x 1.63 x 1.31        | 9.85    | 6.69   | 5.94   |

## PC Mount — Flat Pack

- Primary: 115/230V, 50/60Hz
- Hi-pot tested at 2,000Vrms
- CT = center tap
- Split bobbin with side-by-side windings to reduce capacitance and eliminate the need for a static shield



| Part No. | Product No. | Pwr. (W) | Secondary     |            | Dimensions (H" x W" x L") | Price  |        |        |
|----------|-------------|----------|---------------|------------|---------------------------|--------|--------|--------|
|          |             |          | Series        | Parallel   |                           | 1      | 10     | 100    |
| 629749   | FP20-300    | 6        | 20VCT @ 0.3A  | 10V @ 0.6A | 0.88 x 1.56 x 1.88        | \$9.85 | \$7.76 | \$7.19 |
| 629773   | FP24-250    | 6        | 24VCT @ 0.25A | 12V @ 0.5A | 0.88 x 1.56 x 1.88        | 9.85   | 7.76   | 7.19   |

## PC Mount — Split Pack

- Primary: 115/230V, 50/60Hz
- Hi-pot tested at 2,500Vrms
- CT = center tap
- PC terminal spacing for accurate placement



8-Pin

| Part No. | Prod. No. | Pwr. (W) | Pins | Secondary       |             | Dimensions (H" x W" x L") | Price  |        |        |
|----------|-----------|----------|------|-----------------|-------------|---------------------------|--------|--------|--------|
|          |           |          |      | Series          | Parallel    |                           | 1      | 10     | 100    |
| 629976   | FS16-070  | 1.1      | 8    | 16VCT @ 0.07A   | 8V @ 0.14A  | 0.94 x 1.13 x 1.38        | \$8.29 | \$5.46 | \$5.00 |
| 629917   | FS120-01  | 1.1      | 8    | 120VCT @ 0.01A  | 60V @ 0.02A | 0.94 x 1.13 x 1.38        | 5.99   | 5.46   | 5.00   |
| 629888   | FS10-250  | 2.5      | 8    | 10VCT @ 0.25A   | 5V @ 0.5A   | 0.81 x 1.13 x 1.38        | 7.45   | 5.82   | 5.39   |
| 627858   | F12-200   | 2.5      | 6    | 12.6VCT @ 0.2A  | 6.3V @ 0.4A | 0.81 x 1.13 x 1.38        | 7.29   | 4.94   | 4.58   |
| 628228   | F20-120   | 2.5      | 6    | 20VCT @ 0.12A   | 10V @ 0.24A | 0.81 x 1.13 x 1.38        | 6.29   | 5.40   | 4.75   |
| 628404   | F28-85    | 2.5      | 6    | 28VCT @ 0.085A  | 14V @ 0.17A | 0.81 x 1.13 x 1.38        | 7.29   | 4.94   | 4.58   |
| 628682   | F36-65    | 2.5      | 6    | 36VCT @ 0.065A  | 18V @ 0.13A | 0.81 x 1.13 x 1.38        | 6.29   | 5.49   | 4.91   |
| 630168   | FS56-045  | 2.5      | 6    | 56VCT @ 0.045A  | 28V @ 0.09A | 0.75 x 1.13 x 1.38        | 8.89   | 5.89   | 5.51   |
| 627786   | F120-020  | 2.5      | 6    | 120VCT @ 0.02A  | 60V @ 0.04A | 0.81 x 1.13 x 1.38        | 7.29   | 5.40   | 4.75   |
| 627891   | F12-500   | 6        | 6    | 12.6VCT @ 0.5A  | 6.3V @ 1A   | 0.94 x 0.94 x 1.63        | 8.25   | 5.59   | 5.18   |
| 628244   | F20-300   | 6        | 6    | 20VCT @ 0.3A    | 10V @ 0.6A  | 0.94 x 0.94 x 1.63        | 7.15   | 5.59   | 4.96   |
| 629950   | FS12-1000 | 12       | 8    | 12.6VCT @ 1A    | 6.3V @ 2A   | 1.44 x 1.56 x 1.88        | 9.05   | 6.89   | 6.31   |
| 629992   | FS16-800  | 12       | 8    | 16VCT @ 0.8A    | 8V @ 1.6A   | 1.44 x 1.56 x 1.88        | 10.45  | 6.89   | 6.31   |
| 630011   | FS20-600  | 12       | 8    | 20VCT @ 0.6A    | 10V @ 1.2A  | 1.44 x 1.56 x 1.88        | 10.45  | 6.89   | 6.31   |
| 630053   | FS24-500  | 12       | 8    | 24VCT @ 0.5A    | 12V @ 1A    | 1.44 x 1.56 x 1.88        | 9.05   | 6.89   | 6.31   |
| 630096   | FS28-420  | 12       | 8    | 28VCT @ 0.42A   | 14V @ 0.84A | 1.44 x 1.56 x 1.88        | 9.05   | 6.89   | 6.31   |
| 630133   | FS48-250  | 12       | 8    | 48VCT @ 0.25A   | 24V @ 0.5A  | 1.44 x 1.56 x 1.88        | 10.45  | 7.11   | 6.59   |
| 629001   | FS56-220  | 12       | 8    | 56VCT @ 0.22A   | 28V @ 0.44A | 1.44 x 1.56 x 1.88        | 8.15   | 7.11   | 6.37   |
| 628391   | F28-700   | 20       | 6    | 28VCT @ 0.7A    | 14V @ 1.4A  | 1.44 x 1.56 x 1.88        | 11.25  | 8.36   | 7.61   |
| 627866   | F126-2850 | 36       | 6    | 12.6VCT @ 2.85A | 6.3V @ 5.7A | 1.56 x 1.29 x 1.63        | 14.55  | 9.92   | 8.81   |
| 628084   | F16-2250  | 36       | 6    | 16VCT @ 2.25A   | 8V @ 4.5A   | 1.56 x 1.29 x 1.63        | 10.09  | 9.56   | 8.76   |
| 628236   | F20-1800  | 36       | 6    | 20VCT @ 1.8A    | 10V @ 3.6A  | 1.56 x 1.29 x 1.63        | 14.49  | 10.78  | 9.80   |
| 630037   | FS24-1500 | 36       | 8    | 24VCT @ 1.5A    | 12V @ 3A    | 1.56 x 1.29 x 1.63        | 16.05  | 10.88  | 9.79   |
| 628640   | F36-1000  | 36       | 6    | 36VCT @ 1A      | 18V @ 2A    | 1.56 x 1.29 x 1.63        | 11.49  | 10.87  | 10.25  |

Email us 24/7 at [NewProducts@Jameco.com](mailto:NewProducts@Jameco.com) with suggestions for products you'd like to see in future catalogs.

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## TRIAD Power Transformers (Continued)

### PC Mount — Single Primary, Dual Secondary

- Primary: 115V, 50/60Hz
- Hi-pot tested at 1,500Vrms
- CT = center tap
- Mounting hole size: 3/16"



Type A

Type B

Type D

| Part No. | Prod. No. | Case Type | Pwr. (W) | Secondary      |                | Dimensions (H" x W" x L") | Pricing |         |         |
|----------|-----------|-----------|----------|----------------|----------------|---------------------------|---------|---------|---------|
|          |           |           |          | Series (VCT@A) | Parallel (V@A) |                           | 1       | 10      | 100     |
| 627903   | F-136P    | B         | 1.5      | 116 @ 0.013    | 58 @ 0.026     | 1.29H x 1.39L             | \$17.95 | \$13.34 | \$12.14 |
| 627997   | F-149XP   | A         | 1.5      | 12.6 @ 0.35    | 6.3 @ 0.7      | 1.44 x 2.38 x 1.70        | 12.79   | 9.50    | 8.64    |
| 627954   | F-143XP   | A         | 4.5      | 30 @ 0.15      | 15 @ 0.3       | 1.44 x 2.38 x 1.70        | 10.39   | 9.14    | 7.92    |
| 627962   | F-144XP   | A         | 4.5      | 54 @ 0.084     | 27 @ 0.168     | 1.44 x 2.38 x 1.70        | 11.35   | 8.81    | 8.47    |
| 627989   | F-146XP   | A         | 4.5      | 116 @ 0.033    | 58 @ 0.066     | 1.44 x 2.38 x 1.70        | 12.85   | 8.70    | 8.36    |
| 628130   | F-168XP   | D         | 4.5      | 32 @ 0.05      | 15 @ 0.195     | 1.44 x 2.38 x 1.70        | 13.35   | 9.92    | 9.03    |

### PC Mount — Dual Primary/Secondary

- Primary: 115/230V, 50/60Hz
- Hi-pot tested at 1,500Vrms
- Mounting hole size: 3/16" • CT = center tap



Type A

Type B

| Part No. | Prod. No. | Case Type | Pwr. (W) | Secondary     |            | Dimensions (H" x W" x L") | Pricing |        |        |
|----------|-----------|-----------|----------|---------------|------------|---------------------------|---------|--------|--------|
|          |           |           |          | Series        | Parallel   |                           | 1       | 10     | 100    |
| 628535   | F-333P    | B         | 1.5      | 30VCT @ 0.05A | 15V @ 0.1A | 1.29H                     | \$7.09  | \$6.18 | \$5.46 |
| 628631   | F-359XP   | A         | 10       | 24VCT @ 0.45A | 12V @ 0.9A | 1.63 x 2.81 x 1.88        | 6.59    | 5.74   | 5.06   |

### Isolation/Medical

- Primary: 115/230VAC, 50/60Hz • Split winding
- Hi-pot tested at 1,500Vrms • Secondary: 115/230VAC
- Line cord, plug and receptacles are UL listed and verified to meet specifications



| Part No. | Product No. | Pwr. (W) | Primary Voltage | Secondary Voltage | Connections | Dimensions (H" x W" x D") | Pricing |         |         |
|----------|-------------|----------|-----------------|-------------------|-------------|---------------------------|---------|---------|---------|
|          |             |          |                 |                   |             |                           | 1       | 10      | 100     |
| 618943   | N-66A       | 250      | 115/230         | 115V @ 2.17A      | Leads       | 4.63 x 3.94 x 4.63        | \$59.09 | \$55.34 | \$51.58 |

## TRIAD Gate Drive Transformers

- Used in all high frequency switching topologies to isolate control circuitry from line-connected switches
- Turn ratios of 1:1 and 1:1.5
- Easily standardized at operating frequencies of up to 200kHz

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See Complete Gate Drive Transformer Offering at [www.Jameco.com/Prod/GateDriveTransformers](http://www.Jameco.com/Prod/GateDriveTransformers)



## International Power Cords

- 3-conductor detachable power cords
- Excellent resistance to jacket abrasion
- BSI: British Standard Institution
- Voltage rating: 300V
- Cord color: black
- Cord type: H05VVF

### European Agency Approvals

|             |       |  |
|-------------|-------|--|
| Germany     | VDE   |  |
| Austria     | DVE   |  |
| Belgium     | CEBEC |  |
| Denmark     | DEMKO |  |
| Finland     | FIMKO |  |
| France      | LCIE  |  |
| Netherlands | KEMA  |  |
| Norway      | NEMKO |  |
| Sweden      | SEMKO |  |
| Switzerland | SEV   |  |



Fig. 1

| Part No. | Cross Ref. No. * | Country    | Agency Approvals | Cord Length | Conductors            | Pricing |        |        |        |
|----------|------------------|------------|------------------|-------------|-----------------------|---------|--------|--------|--------|
|          |                  |            |                  |             |                       | 1       | 10     | 100    | 250    |
| 117911   | PCVDE-6B         | Europe     | All in fig. 1    | 6 ft.       | 3/0.75mm <sup>2</sup> | \$5.49  | \$4.95 | \$4.45 | \$3.75 |
| 174633   | 21071H5182       | UK/Ireland | BSI              | 8 ft.       | 3/1.0mm <sup>2</sup>  | 6.49    | 5.84   | 5.26   | 4.73   |

\* Manufacturer may vary

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## Power Entry Filters & AC Receptacles

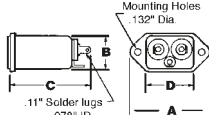


Fig. 1 (Solder Terminals)

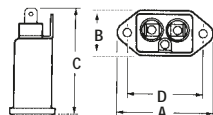


Fig. 2 (Fast-on Terminals)



Fig. 3 (16652)



Fig. 4 (218288)

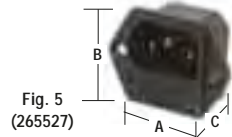


Fig. 5 (265527)



- Frequency: 50/60Hz



Fig. 6 (667454)



Fig. 7 (265527)

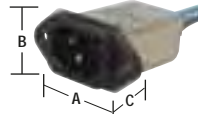


Fig. 8 (210913)



Fig. 9 (147109)

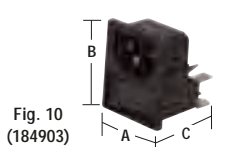


Fig. 10 (184903)

| Part No. | Cross Ref. No. | Description  | Fig. | Current (A) | Voltage (VAC) | Terminals | Agency Approvals | Terminal Size | Dimension (inches) |      |      |      | Pricing |        |        |        |
|----------|----------------|--|------|-------------|---------------|-----------|------------------|---------------|--------------------|------|------|------|---------|--------|--------|--------|
|          |                |  |      |             |               |           |                  |               | A                  | B    | C    | D    | 1       | 10     | 100    | 500    |
| 150615   | 03AC1          | Power entry filter, straight (flanged)                 | 1    | 3           | 250           | Solder    | UL/CSA/VDE       | 0.16"         | 1.89               | 0.88 | 2.58 | 1.58 | \$5.95  | \$5.36 | \$4.28 | \$3.21 |
| 667462   | YB06T1         | Power entry filter, straight (flanged)                 | 1    | 6           | 250           | Fast-on   | UL/CSA/VDE       | 0.26"         | 1.98               | 0.82 | 2.16 | 1.57 | 4.49    | 3.89   | 3.79   | 3.70   |
| 667438   | YB03A1-A       | Power entry filter, straight (flanged)                 | 2    | 3           | 250           | Fast-on   | UL/CSA/VDE       | 0.26"         | 2.05               | 0.98 | 2.15 | 1.58 | 4.95    | 4.29   | 4.19   | 4.08   |
| 63132    | 06AE1          | Power entry filter, straight (flanged)                 | 2    | 6           | 250           | Fast-on   | UL/CSA/VDE       | 0.16"         | 1.96               | 0.88 | 2.06 | 1.58 | 6.95    | 6.26   | 5.01   | 3.75   |
| 16652    | JR101          | AC power inlet (male) flanged solder                   | 3    | 10          | 250           | Fast-on   | UL/CSA/VDE       | 0.187"        | 1.96               | 0.89 | 1.07 | 1.58 | .79     | .71    | .57    | .41    |
| 218288   | 0708-1-CQ      | AC power outlet (female) flanged                       | 4    | 10          | 250           | Fast-on   | UL/CSA/VDE       | 0.189"        | 1.97               | 1.14 | 1.27 | 1.58 | .35     | .29    | .23    | .21    |
| 321621   | WS-044A        | AC power inlet (male) w/ fuse chamber & fuse (snap-in) | 5    | 10          | 250           | Fast-on   | UL/CSA/VDE       | 0.185"        | 1.73               | 1.29 | 0.77 | 1.42 | 1.79    | 1.59   | 1.39   | 1.29   |
| 667454   | SM8301         | Power entry filter, straight (flanged)                 | 6    | 10          | 250           | Fast-on   | UL/CSA/VDE       | 0.25"         | 1.97               | 0.88 | 1.06 | 1.57 | .52     | .494   | .44    | .386   |

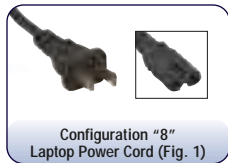
### Other Manufacturers — Great Deals

|        |              |   |    |    |     |         |            |        |      |      |      |      |        |        |        |        |
|--------|--------------|---|----|----|-----|---------|------------|--------|------|------|------|------|--------|--------|--------|--------|
| 165016 | SUP-J15G-E-2 | Power entry filter, straight (flanged)          | 1  | 15 | 250 | Solder  | UL/CSA/VDE | 0.16"  | 1.89 | 0.88 | 2.18 | 1.58 | \$5.95 | \$5.35 | \$4.85 | \$4.05 |
| 395647 | 2VK1         | Power entry filter                              | 7  | 2  | 250 | Fast-on | UL/CSA/VDE | 0.25"  | 2.81 | 0.91 | 3.10 | N/A  | 6.95   | 6.26   | 5.01   | 3.74   |
| 210913 | 01GEEW3E     | Power entry filter, straight (flanged)          | 8  | 1  | 250 | Wire    | UL/CSA/VDE | 4.1"   | 2.05 | 0.99 | 1.78 | 1.58 | 5.95   | 5.36   | 4.28   | 3.21   |
| 147109 | 42R02        | AC power inlet (male) snap-in                   | 9  | 15 | 250 | Fast-on | UL/CSA     | 0.25"  | 1.22 | 0.94 | 1.13 | N/A  | .65    | .59    | .468   | .451   |
| 184903 | 42R363152IOU | AC power inlet (male) w/ switch (snap-in)       | 10 | 10 | 250 | Fast-on | UL/CSA/VDE | 0.25"  | 1.30 | 1.58 | 1.42 | N/A  | 1.95   | 1.76   | 1.40   | 1.17   |
| 265527 | WS-044       | AC power inlet (male) w/ fuse chamber (snap-in) | 5  | 10 | 250 | Fast-on | UL         | 0.185" | 1.73 | 1.29 | 0.77 | 1.42 | 1.79   | 1.59   | 1.39   | 1.29   |

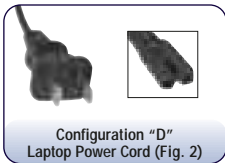
† Includes spare fuse holder - Fuse type 5mm x 20mm (250V) • Blue Part No. = Limited Quantity Available

▲ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

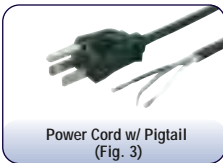
RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



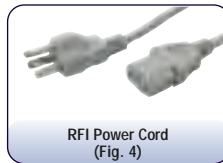
Configuration "8"  
Laptop Power Cord (Fig. 1)



Configuration "D"  
Laptop Power Cord (Fig. 2)



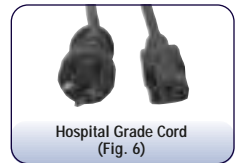
Power Cord w/ Pigtail  
(Fig. 3)



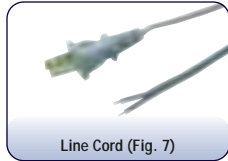
RFI Power Cord  
(Fig. 4)



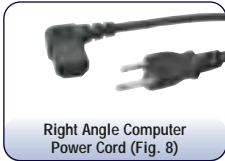
Power Supply  
Extension Cord (Fig. 5)



Hospital Grade Cord  
(Fig. 6)



Line Cord (Fig. 7)



Right Angle Computer  
Power Cord (Fig. 8)



Monitor Power  
Adapter Cord (Fig. 9)



Power Cord w/Pigtail  
(Fig. 10)



Power Strip Saver (Fig. 11)



Power Strip Saver II (Fig. 12)



R/A Power Cord, Shielded  
(Fig. 13)



"Y" Twin End Power Cord  
(Fig. 14)



Detachable Power Cord  
Shielded PVC (Fig. 15)



SALE

Quantity SAVE

Exclusive

## Plug Detail – Industry Standard Designations



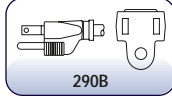
388B



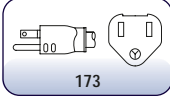
386A/386E



910



290B



173



150

## General Purpose Power Cords

| AWG | Volts | Amps | VA   |
|-----|-------|------|------|
| 18  | 125   | 10   | 1250 |
| 16  | 125   | 12   | 1500 |
| 14  | 125   | 15   | 1875 |

- Molded connectors
- Voltage rating: 300 volts
- Excellent resistance to jacket abrasion
- Temperature: -20°C to +60°C

Quantity SAVE

| Part No. | Cross Ref. No. | Wt. | Fig. | Length | Color | AWG | Cord Type* | Pricing |    |    |     |
|----------|----------------|-----|------|--------|-------|-----|------------|---------|----|----|-----|
|          |                |     |      |        |       |     |            | 1       | 10 | 50 | 100 |

### 2-conductor "8" style power cord for laptops and power supplies

|        |      |     |   |    |       |      |       |        |        |        |        |
|--------|------|-----|---|----|-------|------|-------|--------|--------|--------|--------|
| 189587 | VW-1 | .30 | 1 | 6' | Black | 18/2 | SPT-2 | \$2.95 | \$2.65 | \$2.37 | \$2.10 |
| 355944 | VW-1 | .30 | 1 | 6' | Gray  | 18/2 | SPT-2 | 2.05   | 1.84   | 1.48   | 1.11   |

### 2-conductor "D" style power cord for laptops and power supplies

|        |          |     |   |    |       |      |       |        |        |        |        |
|--------|----------|-----|---|----|-------|------|-------|--------|--------|--------|--------|
| 200791 | LL114039 | .30 | 2 | 6' | Black | 18/2 | SPT-2 | \$2.95 | \$2.65 | \$2.37 | \$2.10 |
|--------|----------|-----|---|----|-------|------|-------|--------|--------|--------|--------|

### 3-conductor power cord with pigtail

|        |        |     |   |    |       |      |     |        |        |        |        |
|--------|--------|-----|---|----|-------|------|-----|--------|--------|--------|--------|
| 279662 | 32V86S | .32 | 3 | 6' | Black | 18/3 | SVT | \$3.95 | \$3.49 | \$2.95 | \$2.59 |
|--------|--------|-----|---|----|-------|------|-----|--------|--------|--------|--------|

### 3-conductor power supply cord (shielded)

|         |        |     |   |       |       |      |     |        |        |        |        |
|---------|--------|-----|---|-------|-------|------|-----|--------|--------|--------|--------|
| 1537459 | LL6415 | .40 | 4 | 9'10" | Beige | 18/3 | SJT | \$3.95 | \$3.39 | \$3.09 | \$2.79 |
| 190625  | 37805  | .75 | 4 | 10'   | Beige | 18/3 | SJT | 4.49   | 3.95   | 3.49   | 2.59   |

### 3-conductor power supply cord

|         |         |     |   |     |       |      |     |        |        |        |        |
|---------|---------|-----|---|-----|-------|------|-----|--------|--------|--------|--------|
| 192727  | 17501J  | .64 | 4 | 10' | Black | 18/3 | SJT | \$3.95 | \$3.59 | \$2.89 | \$2.15 |
| 1537230 | LL34877 | .72 | 4 | 8'  | Black | 16/3 | SJT | 4.55   | 4.09   | 3.69   | 3.35   |

### 3-conductor computer power supply extension cord

|        |            |     |   |     |       |      |     |        |        |        |        |
|--------|------------|-----|---|-----|-------|------|-----|--------|--------|--------|--------|
| 420224 | 10W1-02212 | .53 | 5 | 12' | Black | 18/3 | SVT | \$3.89 | \$3.02 | \$2.87 | \$2.73 |
| 319804 | LR94903    | .33 | 5 | 6'  | Gray  | 18/3 | SVT | 4.15   | 3.74   | 2.99   | 2.24   |

### 3-conductor power cord w/hospital grade male (green dot)

|         |        |     |   |     |      |      |     |        |        |        |        |
|---------|--------|-----|---|-----|------|------|-----|--------|--------|--------|--------|
| 1537563 | 17510A | .82 | 3 | 10' | Gray | 14/3 | SJT | \$9.95 | \$8.95 | \$7.95 | \$6.95 |
|---------|--------|-----|---|-----|------|------|-----|--------|--------|--------|--------|

## Jameco ValuePro™ Power Cords

| Part No. | Cross Ref. No. | Wt. | Fig. | Length | Color | AWG | Cord Type* | Pricing |    |    |     |
|----------|----------------|-----|------|--------|-------|-----|------------|---------|----|----|-----|
|          |                |     |      |        |       |     |            | 1       | 10 | 50 | 100 |

### 2-conductor power cord with pigtail

|        |         |     |   |    |       |      |       |        |        |        |        |
|--------|---------|-----|---|----|-------|------|-------|--------|--------|--------|--------|
| 152187 | 17106BG | .20 | 7 | 6' | Beige | 18/2 | SPT-2 | \$1.29 | \$1.16 | \$ .93 | \$ .70 |
| 124434 | ST008   | .16 | 7 | 6' | Black | 18/2 | SPT-2 | 1.15   | 1.03   | .83    | .69    |

\* Thermoplastic Cord Jacket Type: SPT-2 (Flat): Junior duty: SVT (Round): Light service: SJT (Round): Junior service ↑ European standard insulation color code ⚡ Blue Part No. = Limited Quantity Available

## Jameco ValuePro™ Power Cords (Continued)

| Part No. | Cross Ref. No. | Wt. | Fig. | Length | Color | AWG | Cord Type* | Pricing |    |    |     |
|----------|----------------|-----|------|--------|-------|-----|------------|---------|----|----|-----|
|          |                |     |      |        |       |     |            | 1       | 10 | 50 | 100 |

### 2-conductor power cord with pigtail with strain relief

|       |       |     |   |    |       |      |       |        |        |        |        |
|-------|-------|-----|---|----|-------|------|-------|--------|--------|--------|--------|
| 42041 | 17106 | .25 | 7 | 6' | Black | 18/2 | SPT-2 | \$1.15 | \$1.03 | \$ .93 | \$ .78 |
|-------|-------|-----|---|----|-------|------|-------|--------|--------|--------|--------|

### 3-conductor right-angle power supply cord

|        |           |     |   |    |       |      |     |        |        |        |        |
|--------|-----------|-----|---|----|-------|------|-----|--------|--------|--------|--------|
| 117356 | 8120-6177 | .41 | 8 | 6' | Gray  | 18/3 | SVT | \$3.95 | \$3.56 | \$2.84 | \$2.13 |
| 38076  | 17250R    | .54 | 8 | 6' | Black | 18/3 | SVT | 3.49   | 3.15   | 2.85   | 2.55   |

### 3-conductor power cord with pigtail

|        |         |     |   |     |       |      |     |        |        |        |        |
|--------|---------|-----|---|-----|-------|------|-----|--------|--------|--------|--------|
| 38009  | 17237   | .31 | 3 | 6'  | Gray  | 18/3 | SVT | \$2.39 | \$2.15 | \$1.72 | \$1.29 |
| 37997  | 17236   | .30 | 3 | 6'  | Black | 18/3 | SVT | 2.79   | 2.32   | 2.11   | 1.99   |
| 159409 | 17405B  | .37 | 3 | 6'  | Black | 18/3 | SJT | 2.59   | 2.15   | 1.95   | 1.79   |
| 102007 | 17535B  | .49 | 3 | 10' | Black | 18/3 | SVT | 3.99   | 3.59   | 2.87   | 2.15   |
| 196286 | LL40378 | .80 | 3 | 10' | Black | 16/3 | SJT | 3.49   | 3.14   | 2.83   | 2.35   |
| 100272 | 17629B  | .88 | 3 | 9'  | Black | 14/3 | SJT | 4.59   | 4.29   | 3.79   | 3.59   |

### 3-conductor power supply cord (shielded)

|        |         |     |   |    |       |      |     |        |        |        |        |
|--------|---------|-----|---|----|-------|------|-----|--------|--------|--------|--------|
| 213874 | 17660BG | .40 | 4 | 6' | Beige | 18/3 | SVT | \$3.59 | \$3.25 | \$2.95 | \$2.65 |
|--------|---------|-----|---|----|-------|------|-----|--------|--------|--------|--------|

### 3-conductor power supply cord

|        |         |     |   |     |       |      |     |        |        |        |        |
|--------|---------|-----|---|-----|-------|------|-----|--------|--------|--------|--------|
| 103747 | 17248   | .34 | 4 | 6'  | Gray  | 18/3 | SVT | \$3.89 | \$3.50 | \$2.80 | \$2.49 |
| 38041  | 17249   | .37 | 4 | 6'  | Beige | 18/3 | SVT | 3.49   | 3.15   | 2.51   | 1.88   |
| 38050  | 17250   | .36 | 4 | 6'  | Black | 18/3 | SVT | 3.75   | 3.29   | 2.87   | 2.12   |
| 132118 | 17500   | .44 | 4 | 6'  | Black | 18/3 | SJT | 4.49   | 4.04   | 3.65   | 3.29   |
| 117583 | 17502   | .37 | 4 | 8'  | Gray  | 18/3 | SVT | 3.49   | 3.14   | 2.83   | 2.54   |
| 171096 | 17758   | .60 | 4 | 8'  | Black | 18/3 | SJT | 3.95   | 3.56   | 3.17   | 2.85   |
| 102024 | 17501V  | .55 | 4 | 10' | Black | 18/3 | SVT | 3.95   | 3.39   | 3.09   | 2.79   |
| 163361 | 6952299 | .33 | 4 | 14' | Black | 18/3 | SJT | 5.39   | 4.85   | 3.88   | 2.91   |

### 3-conductor computer power supply extension cord

|       |     |     |   |    |       |      |     |        |        |        |        |
|-------|-----|-----|---|----|-------|------|-----|--------|--------|--------|--------|
| 28468 | PEC | .36 | 5 | 6' | Black | 18/3 | SVT | \$3.89 | \$3.50 | \$2.80 | \$2.10 |
|-------|-----|-----|---|----|-------|------|-----|--------|--------|--------|--------|

### 3-conductor power cord w/ hospital grade male (green dot)

|        |        |     |   |     |       |      |     |        |        |        |        |
|--------|--------|-----|---|-----|-------|------|-----|--------|--------|--------|--------|
| 132011 | 17006G | .82 | 6 | 10' | Gray  | 16/3 | SJT | \$8.45 | \$7.61 | \$6.84 | \$6.16 |
| 115078 | 17006  | .84 | 6 | 10' | Black | 16/3 | SJT | 8.95   | 8.09   | 7.25   | 6.55   |

### 3-conductor computer monitor power adapter cord

|        |      |     |   |    |       |      |     |        |        |        |        |
|--------|------|-----|---|----|-------|------|-----|--------|--------|--------|--------|
| 177448 | MPC1 | .16 | 9 | 1' | Black | 18/3 | SVT | \$2.95 | \$2.66 | \$2.12 | \$1.59 |
|--------|------|-----|---|----|-------|------|-----|--------|--------|--------|--------|

### 3-conductor power cord (power strip saver)

|        |          |     |    |    |       |      |     |        |        |        |        |
|--------|----------|-----|----|----|-------|------|-----|--------|--------|--------|--------|
| 199778 | PSS-1    | .16 | 11 | 1' | Black | 18/3 | SVT | \$1.69 | \$1.55 | \$1.39 | \$1.25 |
| 208338 | SY0527BG | .16 | 11 | 1' | Beige | 18/3 | SVT | 1.69   | 1.45   | 1.09   | 1.03   |

### 3-conductor power cord ("Y" type power strip saver)

|        |          |     |    |    |       |      |     |        |        |        |        |
|--------|----------|-----|----|----|-------|------|-----|--------|--------|--------|--------|
| 208347 | GPR-2006 | .38 | 12 | 2' | Black | 18/3 | SVT | \$4.49 | \$4.25 | \$4.09 | \$3.89 |
|--------|----------|-----|----|----|-------|------|-----|--------|--------|--------|--------|



**SALE**

## Jameco ValuePro™ Power Cords (Continued)



| AWG | Volts | Amps | VA   |
|-----|-------|------|------|
| 18  | 125   | 10   | 1250 |
| 16  | 125   | 12   | 1500 |
| 14  | 125   | 15   | 1875 |

| Part No. | Volex X-Ref. | Fig. (p.248) | Plug Detail (see p.248) | Length | AWG (Stranding) | Cord Type* | Pricing |    |    |     |
|----------|--------------|--------------|-------------------------|--------|-----------------|------------|---------|----|----|-----|
|          |              |              |                         |        |                 |            | 1       | 10 | 50 | 100 |

**3-conductor power cord w/ pigtail, NEMA 5-15P plug, PVC, black**

|        |       |   |   |    |             |     |        |        |        |        |
|--------|-------|---|---|----|-------------|-----|--------|--------|--------|--------|
| 38025  | 17238 | 3 | — | 8' | 18/3        | SVT | \$2.69 | \$2.51 | \$2.29 | \$1.71 |
| 339688 | 40407 | 3 | — | 8' | 18/3(16x30) | SJT | 2.49   | 1.89   | 1.77   | 1.71   |

**3-conductor power cord w/ pigtail, NEMA 5-15P plug, shielded, black**

|        |       |   |   |      |      |     |        |        |        |        |
|--------|-------|---|---|------|------|-----|--------|--------|--------|--------|
| 166925 | 17516 | 3 | — | 6'7" | 14/3 | SJT | \$3.95 | \$3.56 | \$3.20 | \$2.88 |
|--------|-------|---|---|------|------|-----|--------|--------|--------|--------|

**3-conductor power cord w/ pigtail, NEMA 5-15P plug, unshielded, black**

|        |       |   |      |       |             |     |        |        |        |        |
|--------|-------|---|------|-------|-------------|-----|--------|--------|--------|--------|
| 339733 | 17534 | 3 | 290B | 6'7"  | 18/3(41x34) | SVT | \$2.35 | \$1.74 | \$1.65 | \$1.60 |
| 339881 | 17515 | 3 | 290B | 9'10" | 16/3(65x34) | SJT | 3.45   | 3.35   | 3.25   | 3.15   |

**3-conductor power cord w/ pigtail, NEMA, PVC, unshielded, gray**

|        |       |   |   |    |      |     |        |        |        |        |
|--------|-------|---|---|----|------|-----|--------|--------|--------|--------|
| 173809 | 17405 | 3 | — | 6' | 18/3 | SJT | \$2.35 | \$2.12 | \$1.70 | \$1.28 |
|--------|-------|---|---|----|------|-----|--------|--------|--------|--------|

**3-conductor power cord w/ pigtail, shielded, black**

|        |       |    |     |      |             |     |        |        |        |        |
|--------|-------|----|-----|------|-------------|-----|--------|--------|--------|--------|
| 339995 | 17751 | 13 | 910 | 6'7" | 18/3(41x34) | SVT | \$3.65 | \$3.45 | \$3.25 | \$3.09 |
|--------|-------|----|-----|------|-------------|-----|--------|--------|--------|--------|

**3-conductor power cord w/ pigtail, unshielded, black**

|        |       |    |      |       |             |     |        |        |        |        |
|--------|-------|----|------|-------|-------------|-----|--------|--------|--------|--------|
| 340056 | 17537 | 13 | 910  | 9'10" | 18/3(41x34) | SJT | \$3.75 | \$3.39 | \$2.69 | \$2.05 |
| 340072 | 17521 | 10 | 386E | 9'10" | 16/3(26x30) | SJT | 3.85   | 3.69   | 3.59   | 3.39   |
| 340099 | 17539 | 13 | 910  | 9'10" | 16/3(26x30) | SJT | 4.49   | 4.27   | 4.05   | 4.04   |

\* Thermoplastic Cord Jacket Type: SPT-2 (Flat): Junior duty; SVT (Round): Light service; SJT (Round): Junior service; SJO (Round): Junior service with oil-resistant jacket † Temp. rating: 105°C ⊕ Blue P/N = Limited Quantity Available

| Part No. | Volex X-Ref. | Fig. (p.248) | Plug Detail (see p.248) | Length | AWG (Stranding) | Cord Type* | Pricing |    |    |     |
|----------|--------------|--------------|-------------------------|--------|-----------------|------------|---------|----|----|-----|
|          |              |              |                         |        |                 |            | 1       | 10 | 50 | 100 |

**3-conductor power cord, "Y" twin end, black**

|        |        |    |          |     |             |     |        |        |        |        |
|--------|--------|----|----------|-----|-------------|-----|--------|--------|--------|--------|
| 340566 | 17268A | 14 | 150/250A | 6'  | 18/3(41x34) | SJT | \$7.85 | \$5.84 | \$5.55 | \$5.29 |
| 340531 | 17269A | 14 | 150/250A | 10' | 18/3(41x34) | SJT | 8.59   | 6.45   | 6.15   | 5.85   |

**3-conductor right angle detachable power cord, shielded, PVC, black**

|        |       |   |          |      |             |     |        |        |        |        |
|--------|-------|---|----------|------|-------------|-----|--------|--------|--------|--------|
| 173252 | 17745 | 8 | —        | 6'   | 18/3        | SVT | \$3.29 | \$2.96 | \$2.37 | \$1.78 |
| 340152 | 17606 | 8 | 290B/910 | 6'7" | 18/3(41x34) | SJT | 7.65   | 7.03   | 6.34   | 5.70   |

**3-conductor right angle detachable power cord, unshielded, PVC, black**

|        |       |   |          |      |             |     |        |        |        |        |
|--------|-------|---|----------|------|-------------|-----|--------|--------|--------|--------|
| 340355 | 17508 | 8 | 290B/910 | 6'7" | 16/3(26x30) | SJT | \$2.59 | \$2.47 | \$2.35 | \$2.33 |
| 177384 | 17507 | 8 | —        | 10'  | 18/3        | SJT | 3.95   | 3.59   | 3.19   | 2.69   |

**3-conductor detachable power cord, shielded, PVC, black**

|        |       |    |           |       |             |     |        |        |        |        |
|--------|-------|----|-----------|-------|-------------|-----|--------|--------|--------|--------|
| 161761 | 17742 | 15 | 290B/386A | 6'    | 18/3        | SVT | \$3.95 | \$3.56 | \$2.85 | \$2.14 |
| 159361 | 17602 | 15 | —         | 6'    | 16/3        | SJT | 3.79   | 3.41   | 2.73   | 2.05   |
| 340267 | 17605 | 15 | 173/386E  | 9'10" | 14/3(41x30) | SJT | 11.45  | 10.54  | 9.57   | 8.79   |

**3-conductor detachable power cord, unshielded, PVC, black**

|        |        |    |           |      |             |     |        |        |        |        |
|--------|--------|----|-----------|------|-------------|-----|--------|--------|--------|--------|
| 340291 | 17001A | 15 | 290B/386E | 3.0' | 16/3(26x30) | SJT | \$3.69 | \$2.72 | \$2.59 | \$2.50 |
| 125541 | 17504  | 15 | —         | 6'7" | 14/3        | SJT | 4.95   | 4.46   | 4.01   | 3.12   |

## Laser Products

## 60° Line Generating Lens

- Adjustable focus range: 50cm to ∞
- Back focal length: 1.5mm
- Focal length: 8.0mm
- Beam divergence: 2.0mrad
- Lens construction: 3E.3G (glass)
- Length at 1 meter distance: 1.7 m

Class IIIa Laser Product



| Part No. | Description | 1       | 10      | 25     |
|----------|-------------|---------|---------|--------|
| 134148   | 60° lens    | \$12.95 | \$11.49 | \$9.95 |

## Laser Diode Module

- Operates on 3VDC @ <5mW
- 650nm wavelength
- Beam diameter: 5 x 8mm
- Working distance: over 50 meters (daylight), 200 meters (dark)
- Size: 0.9"L x 0.3"Dia.
- One-year warranty



Class IIIa Laser Product

| Part No. | Description           | Price   |
|----------|-----------------------|---------|
| 310519   | Laser module, brass ⊕ | \$44.95 |

## Laser Diode and Driver

- 182932: Laser Diode
- Optical output power: 5mW maximum
- Operating current: 30mA
- Operating voltage: 2.6V maximum
- Lasting wavelength: 650nm typical
- 5.6mm packaging size
- Beam divergence of 11° from center line max.



182932

**161736: Laser driver w/ regulator**

- Input voltage: 2.6-6VDC
- Input current: 40mA



161736

| Part No. | Description         | 1       | 10      | 25      |
|----------|---------------------|---------|---------|---------|
| 182932   | 650nm laser diode ⊕ | \$14.95 | \$13.45 | \$12.15 |
| 161736   | Laser driver ⊕      | 7.95    | 6.95    | 6.25    |

## 650nm Line and Dot Laser Diodes

## 143845/173243:

- Focus adjustable w/ locking set screw
- Wattage: 5mW
- Operating voltage: 3-5V
- Size: 3.3"L x 0.9"Dia.
- One-year warranty

Class IIIa Laser Product



173243

## 143845: Line laser module

- Laser line width: 1mm
- Laser fan angle: 60°

## 173243: Cross hair laser diode module

- Laser fan angle: 60°
- Size: 3.0"L x 0.9"D
- Female 2.1mm power connector

## 143837:

## Module regulated power supply

- Output: 5VDC @ 100mA
- Short circuit protection
- Input voltage: 95-125VAC or 190-250VAC switchable
- Size: 2.0"W x 1.7"D x 9.2"H
- Weight: 0.6 lbs.



143853

## 143853: Laser module mount

- Built to hold laser diode on target
- X-Y tilt, θ movement
- Tightening screw for tilt adjustment

| Part No. | Description                  | 1        | 10       |
|----------|------------------------------|----------|----------|
| 143845   | Line laser diode module ⊕    | \$114.95 | \$103.95 |
| 173243   | Cross hair laser diode mod ⊕ | 89.95    | 80.95    |
| 143837   | Regulated power supply ⊕     | 19.95    | 17.95    |
| 143853   | Laser diode module mount ⊕   | 49.95    | 39.95    |

We're committed to providing you with the best service in the industry.

## Green Laser Pointer



Using a wavelength closely matched to the highest sensitivity of the human eye and built with cutting-edge crystal technology, this laser projects a green beam so powerful you can see it against a clear sky at night.

- Output wavelength: 532nm
- Output power: <5mW
- 90-day manufacturer's warranty

Includes: Metal gift box, clip and 2 AAA batteries

| Part No. | Description           | Price    |
|----------|-----------------------|----------|
| 223731   | Green laser pointer ⊕ | \$152.25 |

## ALPEC Stylus Laser Pointer

A multi-function laser that serves as a stylus pen for PDAs. Buttons for a flashlight or a laser pointer.

- 500 yard range for laser-pointer function
- Super bright white LED for flashlight
- Brass body, satin silver color
- Output power: 5mW max.
- Size: 5.63"L x 0.38"Dia.

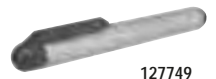
Includes: 3 LR41 batteries

| Part No. | Description          | 1       | 10      |
|----------|----------------------|---------|---------|
| 421702   | Stylus laser pointer | \$24.95 | \$22.46 |

## ALPEC Laser Pointer Pens



153605



127749

- Range up to 500 yards
- 670nm red laser

Includes: 2 AAA batteries

| Part No. | Description  | Size (L" x Dia") | 1       | 10      |
|----------|--------------|------------------|---------|---------|
| 153605   | Black pen ⊕  | 5.2 x 0.4        | \$19.95 | \$17.95 |
| 127749   | Silver brass | 5.4 x 0.4        | 19.95   | 18.95   |

Class IIIa Laser Product

RoHS compliant product ⊕ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

| Color Code Legend        |
|--------------------------|
| New Sale Lower\$ QtySave |

## Lead Acid Batteries

- Sealed
- UL approved
- Rechargeable
- Two-year warranty



264014



264031



264049



264057



264065



264073

| Part Number | Product Number | Nominal Voltage | Amp-Hrs. | Cross Reference |          |              |          | Terminal Size        | Size (L" x W" x H") | Wt. (lbs.) | Pricing |        |
|-------------|----------------|-----------------|----------|-----------------|----------|--------------|----------|----------------------|---------------------|------------|---------|--------|
|             |                |                 |          | Panasonic       | YUASA    | Eagle Picher | Tempest  |                      |                     |            | 1       | 10     |
| 264014      | TY-6-4.5       | 6               | 4.5      | LCR6VP          | NP4-6    | CF16V4       | TR-4-6   | Quick connect 0.187" | 2.8 x 1.9 x 4.0     | 1.9        | \$8.45  | \$7.45 |
| 317024      | LA-TY-6-12     | 6               | 12.0     | —               | —        | —            | —        | Quick connect 0.187" | 5.9 x 1.9 x 3.7     | 4.6        | 14.69   | 12.75  |
| 318844      | LA-TY-12-1.2   | 12              | 1.2      | —               | —        | —            | —        | Quick connect 0.187" | 3.8 x 1.7 x 2.1     | 1.3        | 16.09   | 14.59  |
| 264031      | TY-12-2.3      | 12              | 2.3      | LCR12V2.2P      | NP2.3-12 | CF12V1.5     | TR2.3-12 | Quick connect 0.187" | 7.0 x 1.3 x 2.4     | 2.1        | 15.39   | 14.59  |
| 318924      | LA-TY-12-3.2   | 12              | 3.2      | —               | —        | —            | —        | Quick connect 0.187" | 5.3 x 2.7 x 2.4     | 3.1        | 16.19   | 14.69  |
| 264049      | TY-12-4.5      | 12              | 4.5      | LCR12V4PF       | NP412    | CF12V4       | TR4-12   | Quick connect 0.187" | 3.5 x 2.8 x 4.0     | 3.8        | 18.15   | 16.73  |
| 264057      | TY-12-7        | 12              | 7.0      | LCR12V7.2BP     | NP712    | CFM12V65     | TR7.5-12 | Quick connect 0.187" | 5.9 x 2.6 x 3.7     | 5.6        | 18.15   | 16.21  |
| 264065      | TY-12-12       | 12              | 12.0     | PS12120         | —        | CFM12V12     | TR12-12  | Quick connect 0.187" | 5.9 x 3.9 x 3.9     | 9.0        | 30.65   | 28.25  |
| 264073      | TY-12-18       | 12              | 18.0     | LCR12V17BP      | NPG18-12 | CF12V18      | TR18-12  | Quick connect 0.472" | 7.1 x 3.0 x 6.6     | 13.3       | 32.85   | 28.15  |
| 318852      | LA-TY-12-35    | 12              | 35.0     | —               | —        | —            | —        | Quick connect 0.644" | 7.6 x 5.1 x 6.3     | 27.6       | 53.25   | 47.91  |

Blue Part No. = Limited Quantity Available

## Automatic Battery Chargers

- Safely charge and maintain lead acid batteries without supervision
- High frequency MOSFET switching design
- Multi-stage charging circuit prevents batteries from overcharging
- Extends battery life
- Analog amp meter
- Input voltage: 98 to 132VAC @ 50/60Hz
- Output banks: 3
- Short-circuit, overload, and reverse polarity protection



673416

| Part No. | Product No. | Output Volt. DC @ Current | Size (L"xW"xH")  | Wt. (lbs.) | 1        | 10       | 25       |
|----------|-------------|---------------------------|------------------|------------|----------|----------|----------|
| 673416   | SEC-1215A   | 13.5V @ 15A               | 8.5 x 8.4 x 3.3  | 4.8        | \$141.55 | \$134.49 | \$127.75 |
| 673424   | SEC-1230A   | 13.5V @ 30A               | 10.8 x 8.4 x 3.3 | 6.4        | \$236.55 | \$224.75 | \$213.49 |
| 673432   | SEC-2415A   | 27V @ 15A                 | 10.8 x 8.4 x 3.3 | 6.4        | \$236.55 | \$224.75 | \$213.49 |

## Eveready® Energizer® Alkaline Batteries



198731



215845



198707



198715



Energizer® and the Energizer Bunny® are registered trademarks of the Eveready Battery Company, Inc.

- Single-use Energizer® alkaline batteries for heavy drain and frequent use applications

| Part No. | Size   | 1      | 10     |
|----------|--------|--------|--------|
| 198731   | 9-volt | \$1.89 | \$1.81 |
| 215845   | D      | 1.12   | 1.08   |

- Priced per battery. Sold in multiples of 4.

| Part No. | Size | 1      | 40     | 100    |
|----------|------|--------|--------|--------|
| 198707   | AA   | \$0.64 | \$0.62 | \$0.61 |
| 198715   | AAA  | .49    | .44    | .43    |

## NiCd/NiMH Charger

Universal battery charger for AAA, AA, C, D and "9V" cells (batteries not included).

- Recharge batteries singly or as a group
- Automatic charging current selection for different sizes of batteries
- Fast charging in the specified period with an automatic switch for trickle charge
- LED lamp to indicate proper charging
- Built-in IC timer control



| Part No. | Description       | 1       | 5       | 10      |
|----------|-------------------|---------|---------|---------|
| 231132   | Universal charger | \$17.09 | \$15.55 | \$15.10 |

## Compact Battery Tester

Simply lift the swivel arm of this battery tester and place your battery between the contacts and it will provide you a voltage measurement of your batteries. Tests AAA, AA, C, D, 9V and button cell batteries.

Blue Part No. = Limited Quantity Available

| Part No. | Description            | 1      | 5      |
|----------|------------------------|--------|--------|
| 239556   | Compact battery tester | \$4.49 | \$3.99 |



## Long-Lasting Rechargeable NiMH Batteries

Why buy & throw away hundreds of batteries? Now you can reuse longer-lasting, money saving NiMH rechargeable batteries instead! They feature twice the power of NiCd batteries, so they're ideal for power-hungry devices like digital cameras and camcorders.

\* Priced per battery

### NiMH Batteries



231095 (2/pack)



231087 (4/pack)



231116 (2/pack)



231124 (2/pack)



231108

| Part No. | Description  | Sold in Multiples of | 1      | 8      | 24     | 96     |
|----------|--------------|----------------------|--------|--------|--------|--------|
| 231095   | AAA, 600mAh* | 2                    | \$3.49 | \$3.13 | \$2.83 | \$2.53 |
| 231087   | AA, 1600mAh* | 4                    | 3.49   | 3.13   | 2.83   | 2.53   |
| 231116   | C, 3000mAh*  | 2                    | 6.25   | 5.62   | 5.06   | 4.56   |
| 231124   | D, 9000mAh*  | 2                    | 8.99   | 8.09   | 6.47   | 5.48   |
| 231108   | "9V", 150mAh | 1                    | 8.39   | 7.65   | 6.95   | 6.85   |

## Silver Oxide, Zinc Chloride & Alkaline Batteries

Applications: personal computers, workstations, test equipment, feature telephones, copiers, fax machines, video scramblers/descramblers and remotes.

### Silver Oxide

| Part Number | Cross Ref. No. | Figure | Size   | Volts | mAh  | Dimensions | 1      | 10     | 25     |
|-------------|----------------|--------|--------|-------|------|------------|--------|--------|--------|
| 140783      | 357            | 1      | Button | 1.55  | 1600 | 0.454"Dia. | \$1.75 | \$1.49 | \$1.25 |

Fig. 1



Fig. 2

### Zinc Chloride

| Part No. | Cross Ref. No. | Figure | Size | Volts | mAh | Dimensions                | 1      | 10     | 25     |
|----------|----------------|--------|------|-------|-----|---------------------------|--------|--------|--------|
| 151095   | GF6F22         | 2      | 9V   | 9     | 300 | 1.7"L x 1.0"W x 0.67"Dia. | \$1.25 | \$0.99 | \$0.79 |



Fig. 3 (3/pack)

### Alkaline

Blue Part No. = Limited Quantity Available

| Part Number | Cross Ref. No. | Figure | Size | Volts | mAh | Dimensions               | 1      | 9      | 27     |
|-------------|----------------|--------|------|-------|-----|--------------------------|--------|--------|--------|
| 249181      | LR031.5V       | 3      | AAA  | 1.5   | —   | 1.7"L x 0.40"Dia.        | \$4.45 | \$3.39 | \$3.33 |
| 150965      | Rayovac 840    | 4      | —    | 4.5   | 600 | 1.14"L x 0.73"W x 0.96"H | 9.95   | 8.99   | 8.06   |
| 198791      | MN1604         | 2      | 9V   | 9     | 500 | 1.7"L x 1.0"W x 0.67"H   | 2.85   | 2.55   | 2.29   |



Fig. 4

\* Priced per battery. Sold in multiples of 3.

RoHS compliant product

This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.

**Lithium, Lithium Ion, NiCd and NiMH Batteries**

Applications: personal computers, workstations, test equipment, feature telephones, copiers, fax machines, video scramblers/descramblers and remotes.



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10



Fig. 11



Fig. 12



Fig. 13



Fig. 14



Fig. 15



Fig. 16



Fig. 17



Fig. 18



Fig. 19



Fig. 20



Fig. 21



Fig. 22



Fig. 23



Fig. 24



Fig. 25

**Lithium & Lithium Ion****Quantity SAVE**

| Part No. | Cross Ref. No. | Fig. | Size      | Volts | mAh    | Terminals/Connection                | Dimensions             | 1      | 10     | 25     |
|----------|----------------|------|-----------|-------|--------|-------------------------------------|------------------------|--------|--------|--------|
| 618011   | CR1/3N         | 1    | —         | 3     | 160    | Photocell                           | 0.43"H x 0.46"Dia.     | \$2.45 | \$2.08 | \$1.56 |
| 240258   | CR123A         | 2    | —         | 3     | 1300   | Photo/computer                      | 1.36"L x 0.65"Dia.     | 2.65   | 2.25   | 1.68   |
| 33371    | TL5101P        | 3    | 1/2AA     | 3.6   | 850    | Barrel w/ leads (clock/mem.)        | 0.93"L x 0.56"Dia.     | 5.79   | 5.27   | 4.45   |
| 33398    | TL5104P        | 4    | AA        | 3.6   | 1900   | Barrel w/ leads (clock/mem.)        | 1.88"L x 0.56"Dia.     | 5.95   | 5.49   | 5.19   |
| 146114   | TL2100S        | 5    | AA        | 3.6   | 1900   | Barrel pressure (clock/mem.)        | 1.91"L x 0.56"Dia.     | 6.95   | 6.29   | 5.65   |
| 673627   | FBL414/F90     | —    | Coincell  | 2     | 1      | Vertical PC mount                   | 0.19"Dia. x 0.07"Thick | 1.49   | 1.29   | .99    |
| 11789    | CR2325         | 6    | Coin Cell | 3     | 165    | Clock/memory/watch                  | 0.91"Dia. x 0.13"Thick | 1.65   | 1.47   | 1.25   |
| 14162    | CR2032         | —    | Coin Cell | 3     | 180    | Clock/memory/watch                  | 0.79"Dia. x 0.13"Thick | 1.25   | 1.12   | .94    |
| 689071   | DL2450         | 6    | Coin Cell | 3     | 600    | Clock/memory/watch                  | 0.95"Dia. x 0.18"Thick | 2.95   | 2.59   | 2.39   |
| 673635   | CA1/2AA        | —    | 1/2 AA    | 3     | 950    | Barrel with leads                   | 1.0"L x 0.58"Dia.      | 1.79   | 1.59   | 1.35   |
| 673601   | NBL621/F9DE    | —    | Coincell  | 2     | 4      | Vertical PC mount                   | 0.27"Dia. x 0.10"Thick | 1.79   | 1.59   | 1.35   |
| 126754   | TL5101S        | 7    | Sub-AA    | 3.6   | 850    | Macintosh*                          | 0.95"L x 0.56"Dia.     | 6.95   | 5.91   | 4.43   |
| 240266   | ER14250        | 8    | Sub-AA    | 3.6   | 1000   | Consumer tip                        | 1.00"L x 0.55"Dia.     | 3.99   | 3.89   | 3.81   |
| 263898   | ER14250        | 9    | Sub-AA    | 3.6   | 1000   | With axial leads                    | 1.00"L x 0.55"Dia.     | 4.29   | 4.11   | 3.90   |
| 263978   | ER14335        | 9    | Sub-AA    | 3.6   | 1450   | With axial leads                    | 1.30"L x 0.55"Dia.     | 4.79   | 4.62   | 4.36   |
| 240303   | ER14505        | 10   | AA        | 3.6   | 2400   | Consumer tip                        | 2.00"L x 0.55"Dia.     | 5.19   | 4.85   | 4.55   |
| 263935   | ER14505        | 11   | AA        | 3.6   | 2100   | With solder tabs                    | 2.00"L x 0.55"Dia.     | 4.99   | 4.75   | 4.52   |
| 263986   | ER26500        | —    | C         | 3.6   | 8500   | With axial leads                    | 2.00"L x 1.02"Dia.     | 12.95  | 12.29  | 11.59  |
| 240160   | ER26500        | 12   | C         | 3.6   | 8500   | Consumer tip                        | 2.00"L x 1.02"Dia.     | 11.95  | 11.50  | 11.05  |
| 263994   | ER34615        | —    | D         | 3.6   | 16,500 | With axial leads                    | 2.40"L x 1.34"Dia.     | 15.35  | 13.85  | 12.45  |
| 240151   | ER34615        | 13   | D         | 3.6   | 16,500 | Consumer tip                        | 2.40"L x 1.34"Dia.     | 15.05  | 14.49  | 13.95  |
| 244646   | UR18650H1      | 14   | —         | 3.6   | 2200   | Flat top lithium ion (rechargeable) | 2.60"L x 0.71"Dia.     | 17.55  | 15.79  | 14.21  |

**NiCd – Rechargeable**

\* Blue Part No. = Limited Quantity Available

| Part No. | Cross Ref. No. | Fig. | Size  | Volts | mAh  | Terminals/Connection    | Dimensions         | 1      | 10     | 25     |
|----------|----------------|------|-------|-------|------|-------------------------|--------------------|--------|--------|--------|
| 261657   | AA-700-CT      | 15   | AA    | 1.2   | 700  | Consumer tip            | 1.90"L x 0.55"Dia. | \$1.37 | \$1.25 | \$0.96 |
| 244515   | AA-1000-CT     | 15   | AA    | 1.2   | 1000 | Consumer tip            | 1.90"L x 0.55"Dia. | 2.65   | 2.43   | 2.33   |
| 244574   | SC-1500        | 16   | Sub-C | 1.2   | 1500 | Flat top                | 1.70"L x 0.89"Dia. | 2.15   | 1.98   | 1.87   |
| 244654   | SC-1900        | 16   | Sub-C | 1.2   | 1900 | Flat top                | 1.70"L x 0.89"Dia. | 3.69   | 3.23   | 3.08   |
| 244531   | C-2500-CT      | 17   | C     | 1.2   | 2500 | Consumer tip            | 1.90"L x 1.00"Dia. | 4.65   | 4.19   | 3.77   |
| 244347   | 1/2D-2200      | 18   | 1/2 D | 1.2   | 2200 | Flat top                | 1.40"L x 1.30"Dia. | 3.89   | 3.50   | 3.15   |
| 126720   | 351FT          | 19   | —     | 3.6   | 60   | 2-lead (pin), barrel    | 0.72"L x 0.61"Dia. | 4.49   | 4.05   | 3.65   |
| 119116   | 3V60R          | 20   | —     | 3.6   | 60   | 3-lead (pin), barrel    | 0.72"L x 0.61"Dia. | 3.75   | 3.39   | 3.05   |
| 101653   | NA101-1        | 21   | —     | 3.6   | 60   | 2-lead (eyelet), barrel | 0.72"L x 0.61"Dia. | 5.49   | 4.95   | 3.95   |

**NiMH – Rechargeable**

| Part No. | Cross Ref. No. | Fig. | Size | Volts | mAh  | Terminals/Connection | Dimensions         | 1      | 10     | 25     |
|----------|----------------|------|------|-------|------|----------------------|--------------------|--------|--------|--------|
| 261665   | AAA-700FT      | 22   | AAA  | 1.2   | 700  | Flat top             | 1.70"L x 0.40"Dia. | \$2.25 | \$1.99 | \$1.91 |
| 244814   | AA-1800        | 23   | AA   | 1.2   | 1800 | Flat top             | 1.90"L x 0.55"Dia. | 2.19   | 1.99   | 1.79   |
| 244822   | AA-1800-CT     | 24   | AA   | 1.2   | 1800 | Consumer tip         | 1.90"L x 0.55"Dia. | 2.35   | 2.12   | 1.99   |
| 244620   | 9V-200         | 25   | 9V   | 9     | 200  | Snaps                | 1.94"L x 0.65"Dia. | 7.79   | 6.92   | 6.22   |

**JAMECO ReliaPro****Rechargeable Battery Packs**

- AA single cell: 1.92"L x 0.56"Dia. (48.8mm x 14.2mm)
- SC single cell: 1.65"L x 0.86"Dia. (41.9mm x 21.8mm)
- D single cell: 2.36"L x 1.26"Dia. (59.9mm x 32.0mm)

Fig. 1

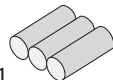
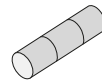


Fig. 2

**SALE****Quantity SAVE**Special  
Sale All Battery  
Packs 10% Off.  
Limited Time

| Part No. | Fig. | Volt | Size | Type | mAh  | Connection | 1      | 10     | 25     |
|----------|------|------|------|------|------|------------|--------|--------|--------|
| 299090   | 1    | 3.6  | AA   | NiCd | 700  | Lead wire  | \$8.39 | \$7.69 | \$7.05 |
| 298193   | 1    | 3.6  | AA   | NiCd | 700  | Solder tab | 5.55   | 5.29   | 4.89   |
| 298345   | 1    | 3.6  | AA   | NiCd | 1000 | Solder tab | 7.25   | 6.55   | 5.85   |
| 299241   | 1    | 3.6  | AA   | NiMH | 1800 | Lead wire  | 11.59  | 10.59  | 9.39   |
| 299399   | 1    | 3.6  | SC   | NiCd | 2200 | Lead wire  | 11.85  | 10.75  | 9.75   |
| 298791   | 1    | 3.6  | D    | NiCd | 5000 | Solder tab | 24.85  | 22.59  | 20.53  |
| 298222   | 2    | 3.6  | AA   | NiCd | 700  | Solder tab | 5.55   | 4.72   | 3.54   |
| 298679   | 2    | 3.6  | SC   | NiCd | 2200 | Solder tab | 10.99  | 9.89   | 8.89   |
| 299428   | 2    | 3.6  | SC   | NiCd | 2200 | Lead wire  | 11.85  | 10.75  | 9.75   |

|        |                   |
|--------|-------------------|
| 299250 | 4.8V/ AA/ 1800mAh |
| 298687 | 4.8V/ SC/ 2200mAh |
| 298222 | 3.6V/ AA/ 700mAh  |
| 299372 | 6V/ AA/ 1800mAh   |
| 299612 | 9.6V/ D/ 5000mAh  |

Rechargeable Battery Packs continued on next page.



Save 10% or more on most batteries!

JAMECO ReliaPro

JAMECO EXCLUSIVE

## Rechargeable Battery Packs (Continued)

SALE

Lower\$\$\$

Quantity SAVE

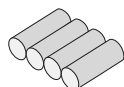


Fig. 3

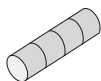


Fig. 4

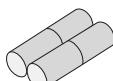


Fig. 5

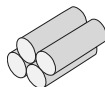


Fig. 6

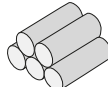


Fig. 7

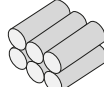


Fig. 8

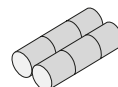


Fig. 9

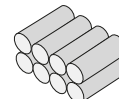


Fig. 10

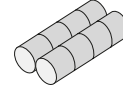


Fig. 11

| Part No. | Fig. | Volt | Size | Type | mAh  | Connection | 1                        | 10     | 25     |
|----------|------|------|------|------|------|------------|--------------------------|--------|--------|
| 299102   | 3    | 4.8  | AA   | NiCd | 1000 | Lead wire  | \$10.45                  | \$9.49 | \$8.59 |
| 299250   | 3    | 4.8  | AA   | NiMH | 1800 | Lead wire  | 14.39                    | 13.75  | 13.09  |
| 299401   | 3    | 4.8  | SC   | NiCd | 2200 | Lead wire  | <del>\$14.75</del> 11.55 | 11.24  | 10.97  |
| 298652   | 3    | 4.8  | SC   | NiCd | 2200 | Solder tab | 13.89                    | 12.49  | 11.25  |
| 299436   | 4    | 4.8  | SC   | NiCd | 2200 | Lead wire  | 14.75                    | 12.54  | 10.98  |
| 298687   | 4    | 4.8  | SC   | NiCd | 2200 | Solder tab | 13.89                    | 12.49  | 11.25  |
| 298572   | 5    | 4.8  | AA   | NiMH | 1800 | Solder tab | 11.29                    | 10.25  | 9.31   |
| 298724   | 5    | 4.8  | SC   | NiCd | 2200 | Solder tab | 13.89                    | 12.49  | 11.25  |
| 299621   | 5    | 4.8  | D    | NiCd | 5000 | Lead wire  | 40.89                    | 34.76  | 26.07  |
| 298919   | 6    | 4.8  | D    | NiCd | 5000 | Solder tab | 34.45                    | 31.35  | 28.46  |
| 299372   | 7    | 6.0  | AA   | NiMH | 1800 | Lead wire  | 17.75                    | 15.29  | 14.59  |
| 298775   | 7    | 6.0  | SC   | NiCd | 2200 | Solder tab | 16.89                    | 14.39  | 12.95  |
| 299680   | 7    | 6.0  | D    | NiCd | 5000 | Lead wire  | 48.39                    | 41.12  | 30.84  |

| Part No. | Fig. | Volt | Size | Type | mAh  | Connection | 1                        | 10      | 25      |
|----------|------|------|------|------|------|------------|--------------------------|---------|---------|
| 298409   | 8    | 7.2  | AA   | NiCd | 1000 | Solder tab | \$14.39                  | \$12.95 | \$11.65 |
| 299153   | 8    | 7.2  | AA   | NiCd | 1000 | Lead wire  | 15.25                    | 13.75   | 12.45   |
| 299305   | 8    | 7.2  | AA   | NiMH | 1800 | Lead wire  | 19.09                    | 17.25   | 15.59   |
| 299330   | 9    | 7.2  | AA   | NiMH | 1800 | Lead wire  | 19.09                    | 17.25   | 15.59   |
| 298732   | 9    | 7.2  | SC   | NiCd | 2200 | Solder tab | 20.79                    | 18.69   | 16.85   |
| 298716   | 10   | 9.6  | SC   | NiCd | 2200 | Solder tab | 27.75                    | 24.95   | 22.45   |
| 299461   | 10   | 9.6  | SC   | NiCd | 2200 | Lead wire  | 28.59                    | 25.79   | 23.29   |
| 299612   | 10   | 9.6  | D    | NiCd | 5000 | Lead wire  | 80.59                    | 68.50   | 51.37   |
| 299348   | 11   | 9.6  | AA   | NiMH | 1800 | Lead wire  | 22.09                    | 19.99   | 18.05   |
| 298741   | 11   | 9.6  | SC   | NiCd | 2200 | Solder tab | 21.99                    | 19.79   | 17.79   |
| 299495   | 11   | 9.6  | SC   | NiCd | 2200 | Lead wire  | <del>\$22.89</del> 19.85 | 17.84   | 16.99   |
| 299647   | 11   | 9.6  | D    | NiCd | 5000 | Lead wire  | 57.85                    | 49.16   | 36.87   |

JAMECO ReliaPro

## Battery Holders

Quantity SAVE

JAMECO EXCLUSIVE

Eliminate battery mounting problems in portable DC power applications and products. These holders are made from special materials that maintain retention properties longer than conventional holders. They can come with leads, or attached to battery holders.

| Part No.                                 | Cross Ref. No. | Fig. | No. of Cells            | Connector | Sides     | Features              | 1                    | 10    | 100    | 500    |
|--|----------------|------|-------------------------|-----------|-----------|-----------------------|----------------------|-------|--------|--------|
| 216071                                   | BH-311-2A      | 1    | 1-AA                    | Wires     | Single    |                       | \$.69                | \$.62 | \$.496 | \$.372 |
| 216080                                   | BH-321-2A      | 2    | 2-AA                    | Wires     | Single    |                       | .69                  | .62   | .56    | .50    |
| 216098                                   | BH-321-4A      | 2    | 2-AA                    | Wires     | Single    | With mounting tabs    | .59                  | .53   | .42    | .32    |
| 216101                                   | SBH-321-2A     | 3    | 2-AA                    | Wires     | Single    | With cover, no switch | .59                  | .477  | .336   | .24    |
| 216119                                   | SBH-321-1AS    | 3    | 2-AA                    | Wires     | Single    | With cover and switch | .79                  | .71   | .64    | .54    |
| 216135                                   | BH-331-A       | 4    | 3-AA                    | Wires     | Single    |                       | .89                  | .79   | .72    | .65    |
| 216143                                   | SBH-331-AS     | 5    | 3-AA                    | Wires     | Single    | With cover and switch | .84                  | .76   | .73    | .66    |
| 216151                                   | BH-341-2A      | 6    | 4-AA                    | Wires     | Single    |                       | <del>\$.99</del> .85 | .78   | .62    | .465   |
| 105858                                   | * R            | 7    | 4-AA                    | Wires     | Single    | Wires with connector  | .89                  | .80   | .72    | .60    |
| 216178                                   | BH-343-1A      | 8    | 4-AA                    | Wires     | Dual      |                       | .65                  | .55   | .47    | .35    |
| 216186                                   | SBH-341-1AS    | 9    | 4-AA                    | Wires     | Single    | With cover and switch | 1.09                 | .89   | .85    | .75    |
| 216223                                   | BH-364-A       | 10   | 6-AA                    | Wires     | Single    |                       | <del>\$.95</del> .85 | .71   | .65    | .49    |
| 216231                                   | BH-363-B       | 11   | 6-AA                    | Snaps     | Dual      |                       | .99                  | .75   | .69    | .65    |
| 216240                                   | BH-383-A       | 12   | 8-AA                    | Wires     | Dual      |                       | 1.09                 | .98   | .78    | .59    |
| 216258                                   | BH-382-B       | 13   | 8-AA                    | Snaps     | Dual      |                       | 1.19                 | .99   | .89    | .85    |
| 216267                                   | BH-383-B       | 12   | 8-AA                    | Snaps     | Dual      |                       | 1.19                 | .99   | .86    | .64    |
| 216282                                   | BH-421-1A      | 2    | 2-AAA                   | Wires     | Single    |                       | .59                  | .53   | .42    | .315   |
| 216291                                   | SBH-421-AS     | 3    | 2-AAA                   | Wires     | Single    | With cover and switch | .65                  | .59   | .47    | .35    |
| 216303                                   | BH-431-1A      | 4    | 3-AAA                   | Wires     | Single    |                       | .69                  | .62   | .56    | .49    |
| 216311                                   | SBH-431-1AS    | 5    | 3-AAA                   | Wires     | Single    | With cover and switch | .79                  | .69   | .59    | .49    |
| 216338                                   | SBH-441-AS     | 9    | 4-AAA                   | Wires     | Single    | With cover and switch | 1.25                 | 1.12  | .90    | .81    |
| 216346                                   | BH-211-A       | 1    | 1-C                     | Wires     | Single    |                       | .55                  | .50   | .40    | .30    |
| 216354                                   | BH-221-A       | 2    | 2-C                     | Wires     | Single    |                       | 1.19                 | 1.07  | .86    | .65    |
| 216362                                   | BH-242-1A      | 14   | 4-C                     | Wires     | Single    |                       | 1.39                 | 1.25  | 1.00   | .75    |
| 216371                                   | BH-111-1A      | 1    | 1-D                     | Wires     | Single    |                       | .69                  | .62   | .496   | .372   |
| 216389                                   | BH-121-1A      | 2    | 2-D                     | Wires     | Single    |                       | .99                  | .89   | .72    | .54    |
| 216400                                   | BH-142-A       | 14   | 4-D                     | Wires     | Single    |                       | 1.19                 | 1.07  | .96    | .72    |
| 216419                                   | BH-143-1A      | 6    | 4-D                     | Wires     | Single    |                       | 1.15                 | .89   | .81    | .74    |
| 216426                                   | BH-9V-A        | 15   | 1-9V                    | Wires     | Single    |                       | .79                  | .69   | .64    | .59    |
| 38543                                    | 2S2325         | 16   | 1-CR2354<br>or 2-CR2325 | PC Mount  | Coin cell |                       | 1.15                 | 1.02  | .94    | .69    |
| 355434                                   | 17002-00603    | 17   | 1-CR2032                | PC Mount  | Coin cell |                       | .63                  | .57   | .456   | .345   |
| <b>Other Manufacturers — Great Deals</b> |                |      |                         |           |           |                       |                      |       |        |        |
| 644009                                   | 1026           | 16   | 2-CR2016                | PC Mount  | Coin cell |                       | \$.77                | \$.69 | \$.55  | \$.42  |
| 236996                                   | 103            | 16   | 1-CR2032                | PC Mount  | Coin cell |                       | .99                  | .89   | .71    | .53    |
| 643954                                   | 139            | 18   | 1-AA                    | Tabs      | Single    |                       | .63                  | .56   | .51    | .41    |

\* Battery holder used in many personal computers

Blue Part No. = Limited Quantity Available



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5

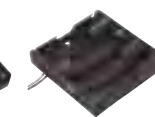


Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10



Fig. 11



Fig. 12



Fig. 13



Fig. 14



Fig. 15



Fig. 16



Fig. 17



Fig. 18

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Please send your requests to [NewProducts@Jameco.com](mailto:NewProducts@Jameco.com).

RoHS compliant product

This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

## "9-Volt" Battery Snaps and Clip

- Use with standard "9 volt" batteries
- Fully insulated; contacts are nickel-plated brass
- Leads are color-coded, stripped and pre-tinned
- Snap: male outer dia. = 0.225" • Female inner dia. = 0.215"

Fig. 1



Fig. 2








Fig. 3



Fig. 4



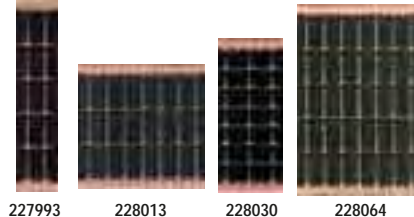
\* 10 piece minimum


| Part No. | Fig. | Description   | Dimensions (in.) |     |     | Pricing |       |       |       |
|----------|------|---|------------------|-----|-----|---------|-------|-------|-------|
|          |      |   | L                | W   | H   | 1       | 10    | 100   | 1000  |
| 11280    | 1    | 3", 26 AWG, 6 prong battery snap   | 1.0              | .50 | —   | \$.25   | \$.22 | \$.19 | \$.16 |
| 105794   | 2    | Battery holder clip                | .63              | .71 | 1.2 | .28     | .23   | .16   | .14   |
| 109154   | 3    | 6", 26 AWG, 6 prong battery snap   | 1.0              | .50 | —   | —       | .17   | .15   | .135  |
| 101470   | 3    | 10", 26 AWG, 6 prong battery snap  | 1.0              | .50 | —   | .29     | .25   | .21   | .14   |
| 216452   | 4    | 6", 26 AWG, 6 prong battery snap   | 1.0              | .50 | —   | .34     | .30   | .20   | .18   |

## PowerFilm. Flexible Thin Film Solar Modules

### Wireless Electronics Series

The Wireless Electronics Series offers a new opportunity to solve the old problem of limited power for wireless electronics in portable and remote applications. These modules are lightweight, paper thin, and durable. With their ultra-thin profile, they are easily integrated with devices for solar recharging or direct powering. Specifically developed to recharge AA, AAA, plus 6 and 12 volt batteries.



| Part No. | Product No.  | Operating Voltage (V) | Operating Current (mA) | Size (L x W x T) |                 | Pricing |        |        |
|----------|--|-----------------------|------------------------|------------------|-----------------|---------|--------|--------|
|          |  |                       |                        | Inches           | mm              | 1       | 10     | 100    |
| 227985   | SP3-37   | 3.0                   | 22                     | 2.5 x 1.5 x .01  | 64 x 37 x 0.2   | \$3.89  | \$3.49 | \$3.19 |
| 227993   | TX 3-25  | 3.0                   | 25                     | 4.5 x 1.0 x .01  | 114 x 25 x 0.2  | 2.89    | 2.45   | 1.99   |
| 171061   | MP3-37   | 3.0                   | 50                     | 4.5 x 1.5 x .01  | 114 x 37 x 0.2  | 5.89    | 5.29   | 4.99   |
| 228013   | MPT3.6-75  | 3.6                   | 50                     | 2.9 x 3.0 x .01  | 74 x 75 x 0.2   | 8.89    | 7.99   | 7.19   |
| 228030   | SP4.2-37   | 4.2                   | 22                     | 3.3 x 1.5 x .01  | 84 x 37 x 0.2   | 5.89    | 5.29   | 4.79   |
| 228048   | MPT4.8-75  | 4.8                   | 50                     | 3.7 x 3.0 x .01  | 97 x 75 x 0.2   | 11.89   | 10.69  | 9.59   |
| 228056   | MPT4.8-150  | 4.8                   | 100                    | 3.7 x 5.9 x .01  | 94 x 150 x 0.2  | 22.89   | 20.59  | 18.49  |
| 228064   | MPT6-75  | 6.0                   | 50                     | 4.5 x 3.0 x .01  | 114 x 75 x 0.2  | 13.89   | 12.49  | 11.29  |
| 228072   | MPT6-150   | 6.0                   | 100                    | 4.5 x 5.9 x .01  | 114 x 150 x 0.2 | 23.75   | 21.25  | 19.12  |
| 228099   | MPT7.2-150   | 7.2                   | 200                    | 10.0 x 5.9 x .02 | 253 x 150 x 0.6 | 39.89   | 37.99  | 34.99  |
| 228101   | MPT15-75   | 15.4                  | 50                     | 10.0 x 3.0 x .02 | 253 x 75 x 0.6  | 26.85   | 22.82  | 17.12  |
| 228110   | MPT15-150  | 15.4                  | 100                    | 10.0 x 5.9 x .02 | 253 x 150 x 0.6 | 44.89   | 42.99  | 39.99  |

 Blue Part No. = Limited Quantity Available

### WeatherPro Series

The right choice for permanent outdoor applications that are directly exposed to the elements. These modules feature rugged construction, a UV-stabilized surface, an extra edge seal for weather protection, and tin-coated copper leads that extend from the module.



| Part No. | Product No. | Operating Voltage (V) | Operating Current (mA) | Size (L x W x T)  |                 | Pricing |         |         |
|----------|-------------|-----------------------|------------------------|-------------------|-----------------|---------|---------|---------|
|          |             |                       |                        | Inches            | mm              | 1       | 10      | 100     |
| 228161   | P7.2-75     | 7.2                   | 100                    | 10.3 x 3.9 x .04  | 270 x 100 x 1.1 | \$39.89 | \$36.99 | \$33.99 |
| 228179   | P7.2-150    | 7.2                   | 200                    | 10.3 x 6.9 x .04  | 270 x 175 x 1.1 | 59.89   | 54.99   | 49.99   |
| 228187   | PT15-75     | 15.4                  | 50                     | 10.3 x 3.9 x .04  | 270 x 100 x 1.1 | 39.89   | 36.99   | 33.99   |
| 228195   | PT15-150    | 15.4                  | 100                    | 10.3 x 6.9 x .04  | 270 x 175 x 1.1 | 59.89   | 51.40   | 38.55   |
| 228208   | PT15-300    | 15.4                  | 200                    | 10.3 x 12.8 x .04 | 270 x 325 x 1.1 | 99.89   | 94.99   | 89.99   |

## Mini-Panel Solar Cells

### Ready to Use! No Soldering

Encapsulated mini-panels utilize solar cells similar to those that power our satellites in space, yet they are safe and simple to use. Mini-panels allow for handling without the normal breakage and cell damage associated with fragile solar cells. 6" red/black lead wires attached. Modules may be connected to create different outputs.

- Size: 3.8"L x 2.5"W
- Connection: lead

| Part No. | Cross Ref. No. | VDC @ mA  | Size (L x W) | 1      | 10     |
|----------|----------------|-----------|--------------|--------|--------|
| 200221   | SOL4           | 2.0 @ 200 | 3.0" x 3.7"  | \$8.99 | \$7.99 |
| 215319   | 4-3.0-100      | 3.0 @ 100 | 3.8" x 2.5"  | 14.29  | 12.89  |
| 215327   | 4-6.0-50       | 6.0 @ 50  | 3.8" x 2.5"  | 15.79  | 14.39  |

200221



215327



## Panel Meters

### 0.6" High 3 1/2- & 4 1/2-Digit LCD Digital Panel Meters



108388



175951



146835







123140

- Input ranges: 200mV, 20V, 200V, 500V
- Input impedance: >100MΩ
- Accuracy: ±0.5% • Size: 2.7"W x 1.7"H
- Automatic polarity indication
- Supply voltage: 8-12VDC (recommend 9V battery P/N 151095, pg 250)

146835: Backlit display

Includes: Bezel

| Part No. | Cross Ref. No.   | Digits     | 1       | 10      | 25      |
|----------|--|------------|---------|---------|---------|
| 108388   | PM-428    | 3 1/2 ..   | \$12.95 | \$11.95 | \$10.95 |
| 175951   | PM-128    | 3 1/2 .... | 12.95   | 11.95   | 10.95   |
| 146835   | PM-188BL  | 3 1/2 .... | 19.95   | 17.99   | 16.19   |
| 123140   | PM-328    | 4 1/2 .... | 27.95   | 24.95   | 22.49   |

## velleman Analog Panel Meters

- Includes mounting hardware
- Size: A: 2.4"W x 1.8"H x 1.3"D  
B: 2.8"W x 2.4"H x 1.4"D

 Panel-Mount Oscilloscope on Page 277














316507: Includes current shunt



316603



316523

| Part No. | Product No.   | Range      | Size  | 1      | 4      |
|----------|---|------------|-------|--------|--------|
| 316603   | AVM6015    | 0 – 15VDC  | A     | \$9.29 | \$7.85 |
| 316671   | AVM7015    | 0 – 15VDC  | A ... | 8.79   | 7.49   |
| 316638   | AVM6030    | 0 – 30VDC  | A ... | 8.79   | 7.49   |
| 316654   | AVM7030    | 0 – 30VDC  | B ... | 8.79   | 7.49   |
| 316718   | AVM60150   | 0 – 150VAC | A ... | 8.79   | 7.49   |
| 316785   | AVM60300   | 0 – 300VAC | A ... | 8.79   | 7.49   |
| 315301   | AIM60005   | 0 – 50μA   | A ... | 9.29   | 7.85   |
| 316523   | AIM6050    | 0 – 50mA   | A ... | 8.79   | 7.49   |
| 316486   | AIM60100   | 0 – 100mA  | A ... | 8.99   | 7.65   |
| 316558   | AIM60500   | 0 – 500mA  | A ... | 8.99   | 7.65   |
| 316566   | AIM60500   | 0 – 5A     | A ... | 8.79   | 7.49   |
| 316582   | AIM705000  | 0 – 5A     | B ... | 8.79   | 7.49   |
| 316494   | AIM6010A   | 0 – 10A    | A ... | 8.79   | 7.49   |
| 316507   | AIM6030A   | 0 – 30A    | A ... | 8.79   | 7.49   |

## 30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 322.

## Serial LCD Displays

Lower\$\$\$

• For detailed specification sheets, please visit [www.Jameco.com](http://www.Jameco.com).

• One year warranty

### Matrix Orbital LK162-12



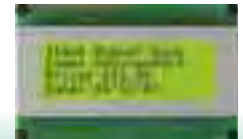
174166

### Matrix Orbital VK202-25



281359

### Matrix Orbital LCD2041



150957

### Matrix Orbital LK204-25



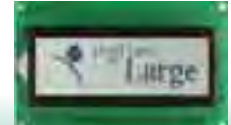
157323

### Matrix Orbital GLK12232-25-SM



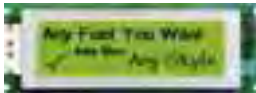
281391

### Matrix Orbital GLK12232-25-WBL



281404

### Matrix Orbital GLC24064



174182

### Matrix Orbital GLK24064-25



281412

## Jameco's Got the Docs

We offer free technical documents for most of the products we carry. Find them easily on the product specification pages at [www.Jameco.com](http://www.Jameco.com).

| Part No. | Product No.   | Characters x Lines | Serial Input (bps) | Input Voltage | Backlight | Notes*       | Module Size (W"xH"xD") | Display Size (W"xH") | Pricing |         |         |
|----------|---------------|--------------------|--------------------|---------------|-----------|--------------|------------------------|----------------------|---------|---------|---------|
|          |               |                    |                    |               |           |              |                        |                      | 1       | 10      | 25      |
| 174166   | LK162-12      | 16 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,3,4,6      | 3.2 x 1.5 x 0.8        | 2.5 x 0.7            | \$49.59 | \$48.99 | \$48.49 |
| 693791   | LK162-12-E    | 16 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,13,15    | 3.2 x 1.4 x 1.1        | 2.5 x 0.7            | 63.99   | 62.99   | 62.25   |
| 693708   | LK162-12-GW   | 16 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,12,13    | 3.2 x 1.4 x 1.1        | 2.5 x 0.7            | 49.59   | 48.99   | 48.59   |
| 693812   | LK162-12-GW-E | 16 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,12,13,15 | 3.2 x 1.4 x 1.1        | 2.5 x 0.7            | 59.59   | 59.39   | 59.19   |
| 693863   | LK162-12-GW-V | 16 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,12,13,16 | 3.2 x 1.4 x 1.1        | 2.5 x 0.7            | 51.39   | 50.37   | 49.37   |
| 693783   | LK162-12-IY   | 16 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,13,14    | 3.2 x 1.4 x 1.1        | 2.5 x 0.7            | 49.59   | 48.99   | 48.49   |
| 693839   | LK162-12-IY-E | 16 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,13,14,15 | 3.2 x 1.4 x 1.1        | 2.5 x 0.7            | 59.59   | 59.39   | 59.19   |
| 693960   | LK162-12-IY-V | 16 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,13,14,16 | 3.2 x 1.4 x 1.1        | 2.5 x 0.7            | 51.39   | 50.37   | 49.37   |
| 1536878  | LK162-12-R    | 16 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,13       | 3.2 x 1.4 x 1.1        | 2.5 x 0.7            | 49.59   | 48.99   | 48.49   |
| 693821   | LK162-12-R-E  | 16 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,13,15,17 | 3.2 x 1.4 x 1.1        | 2.5 x 0.7            | 63.99   | 62.99   | 62.25   |
| 693880   | LK162-12-R-V  | 16 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,13,16,17 | 3.2 x 1.4 x 1.1        | 2.5 x 0.7            | 51.39   | 50.37   | 49.37   |
| 693855   | LK162-12-V    | 16 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,13,16    | 3.2 x 1.4 x 1.1        | 2.5 x 0.7            | 51.39   | 50.37   | 49.37   |
| 281332   | LK162-12-WB   | 16 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,13,19    | 3.2 x 1.4 x 1.1        | 2.5 x 0.7            | 49.59   | 48.99   | 48.49   |
| 693847   | LK162-12-WB-E | 16 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,13,15,19 | 3.2 x 1.4 x 1.1        | 2.5 x 0.7            | 59.59   | 59.39   | 59.19   |
| 693871   | LK162-12-WB-V | 16 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,13,16,19 | 3.2 x 1.4 x 1.1        | 2.5 x 0.7            | 51.39   | 50.37   | 49.37   |
| 694292   | PK162-12      | 16 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,13       | 3.2 x 1.4 x 1.1        | 2.5 x 0.7            | 58.15   | 55.99   | 54.84   |
| 694305   | PK162-12-E    | 16 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,13,15    | 3.2 x 1.4 x 1.1        | 2.5 x 0.7            | 68.45   | 68.25   | 68.19   |
| 694313   | PK162-12-V    | 16 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,13,16    | 3.2 x 1.4 x 1.1        | 2.5 x 0.7            | 61.99   | 59.99   | 58.69   |
| 694321   | PK202-25      | 20 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,13       | 3.1 x 1.4 x 1.1        | 2.5 x 0.7            | 69.09   | 65.09   | 64.09   |
| 694330   | PK202-25-E    | 20 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,13,15    | 3.1 x 1.4 x 1.1        | 2.5 x 0.7            | 77.95   | 76.99   | 75.99   |
| 694348   | PK202-25-V    | 20 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,13,16    | 3.1 x 1.4 x 1.1        | 2.5 x 0.7            | 71.59   | 69.99   | 67.99   |
| 174174   | LK202-25      | 20 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,10       | 4.6 x 1.5 x 1.1        | 3.1 x 0.7            | 58.99   | 56.99   | 53.49   |
| 694129   | LK202-25-E    | 20 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,10,15    | 4.6 x 1.5 x 1.1        | 3.1 x 0.7            | 68.55   | 66.49   | 65.17   |
| 693986   | LK202-25-IY   | 20 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,10,14    | 4.6 x 1.5 x 1.1        | 3.1 x 0.7            | 58.99   | 56.99   | 53.49   |
| 694145   | LK202-25-IY-E | 20 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,10,14,15 | 4.6 x 1.5 x 1.1        | 3.1 x 0.7            | 78.29   | 76.99   | 75.69   |
| 694090   | LK202-25-IY-V | 20 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,10,14,16 | 4.6 x 1.5 x 1.1        | 3.1 x 0.7            | 61.19   | 59.37   | 57.58   |
| 693978   | LK202-25-GW   | 20 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,10,12    | 4.6 x 1.5 x 1.1        | 3.1 x 0.7            | 58.99   | 56.99   | 53.49   |
| 694137   | LK202-25-GW-E | 20 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,10,12,15 | 4.6 x 1.5 x 1.1        | 3.1 x 0.7            | 68.55   | 66.49   | 65.17   |
| 694014   | LK202-25-GW-V | 20 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,10,12,16 | 4.6 x 1.5 x 1.1        | 3.1 x 0.7            | 61.19   | 59.37   | 57.58   |
| 693994   | LK202-25-R    | 20 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,10,17    | 4.6 x 1.5 x 1.1        | 3.1 x 0.7            | 58.99   | 56.99   | 53.49   |
| 694153   | LK202-25-R-E  | 20 x 2             | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,10,15,17 | 4.6 x 1.5 x 1.1        | 3.1 x 0.7            | 68.55   | 66.49   | 65.77   |

\*1. For a power supply, Jameco recommends P/N 164101, pg 240

2. Includes instruction codes for character generation, cursor control, printing, etc. (Examples for Stamps in PBASIC included)

3. Manual and software included

4. Connect 16 modules using the same two wire interface

5. EEPROM stores text font, settings, and text screen

6. Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping, and auto scroll feature

7. Connect 127 modules on the same 2-wire interface

8. 122 x 32 pixel graphics display, text display using built-in or user supplied fonts, adjustable contrast, backlighting, and keypad interface

9. 240 x 64 pixel graphic display, text display using built-in or user supplied fonts, adjustable contrast, backlighting, and keypad interface

10. Built-in font provision for up to 8-user defined characters, software controlled brightness, use up to a 25-key keypad with one 10-key buffer, 6 general purpose outputs, horizontal or vertical bar graphs

11. LCD Serial Backpack\* accepts RS232, CMOS or TTL signal

12. Grey text/white background

13. Built-In font provision for up to 8-user define characters, software controlled contrast and brightness, use of up to 12-key with 10-key buffer, horizontal or vertical bar graphs

14. Inverse yellow

15. Extended temperature

16. Wide voltage range +9 to +155VDC

17. Inverse red

18. Wide voltage range with efficient switching power supply (+9 to +35VDC)

19. White text/blue background

20. Color of illumination: white/ice blue

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♣ This product is a special order, non-cancelable, non-returnable and may take 2-4 weeks to ship.


















RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



## Serial LCD Displays (Continued)

**Lower \$\$\$**

• For detailed specification sheets, please visit [www.Jameco.com](http://www.Jameco.com). • One year warranty

| Part No. | Product No.  | Characters x<br>Lines       | Serial Input (bps) | Input Voltage | Backlight | Notes*       | Module Size<br>(W"xH"xD") | Display Size<br>(W"xH") | Pricing             |         |         |         |
|----------|--|-----------------------------|--------------------|---------------|-----------|--------------|---------------------------|-------------------------|---------------------|---------|---------|---------|
|          |  |                             |                    |               |           |              |                           |                         | 1                   | 10      | 25      |         |
| 694102   | LK202-25-R-V        | 20 x 2                      | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,10,16,17 | 4.6 x 1.5 x 1.1           | 3.1 x 0.7               | <del>\$68.35</del>  | \$61.19 | \$59.37 | \$57.58 |
| 694006   | LK202-25-V          | 20 x 2                      | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,10,16    | 4.6 x 1.5 x 1.1           | 3.1 x 0.7               | <del>\$68.35</del>  | 61.19   | 59.37   | 57.58   |
| 281341   | LK202-25-WB         | 20 x 2                      | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,10       | 4.6 x 1.5 x 1.1           | 3.2 x 0.7               | <del>\$64.99</del>  | 58.99   | 56.99   | 53.49   |
| 694161   | LK202-25-WB-E       | 20 x 2                      | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,10,15    | 4.6 x 1.5 x 1.1           | 3.1 x 0.7               | <del>\$78.29</del>  | 68.55   | 66.49   | 65.77   |
| 694111   | LK202-25-WB-V       | 20 x 2                      | 1200 - 19,200      | 5.0V @ 9mA    | Y         | 1,7,10,16    | 4.6 x 1.5 x 1.1           | 3.1 x 0.7               | <del>\$68.35</del>  | 61.19   | 59.37   | 57.58   |
| 281359   | VK202-25            | 20 x 2 w/ keypad interface  | 1200 - 19,200      | 5.0V @ 130mA  | Y         | 1,7,10       | 4.6 x 1.5 x 0.9           | 2.8 x 0.5               |                     | 88.99   | 87.97   | 84.47   |
| 150957   | LCD2041             | 20 x 4                      | 1200 - 19,200      | 5.0V @ 10mA   | Y         | 1,3,4,6      | 3.9 x 2.4 x 0.7           | 3.0 x 1.0               | <del>\$77.99</del>  | 57.99   | 55.99   | 55.50   |
| 157323   | LK204-25            | 20 x 4 w/ keypad interface  | 1200 - 19,200      | 5.0V @ 16mA   | Y         | 1,3,4,6      | 3.7 x 2.4 x 1.1           | 3.0 x 1.0               | <del>\$77.99</del>  | 68.99   | 66.99   | 65.59   |
| 694217   | LK204-25-E          | 20 x 4 w/ keypad interface  | 1200 - 19,200      | 5.0V @ 16mA   | Y         | 1,7,10,15    | 3.9 x 2.4 x 1.2           | 3.0 x 1.0               | <del>\$91.29</del>  | 79.59   | 78.39   | 76.99   |
| 694225   | LK204-25-GW-E       | 20 x 4 w/ keypad interface  | 1200 - 19,200      | 5.0V @ 16mA   | Y         | 1,7,10,12,15 | 3.9 x 2.4 x 1.2           | 3.0 x 1.0               | <del>\$91.29</del>  | 79.59   | 78.39   | 76.99   |
| 694250   | LK204-25-GW-V       | 20 x 4 w/ keypad interface  | 1200 - 19,200      | 5.0V @ 16mA   | Y         | 1,7,10,12,16 | 3.9 x 2.4 x 1.2           | 3.0 x 1.0               | <del>\$80.69</del>  | 71.99   | 70.29   | 68.99   |
| 694170   | LK204-25-IY         | 20 x 4 w/ keypad interface  | 1200 - 19,200      | 5.0V @ 16mA   | Y         | 1,7,10,14    | 3.9 x 2.4 x 1.2           | 3.0 x 1.0               | <del>\$78.79</del>  | 68.99   | 66.99   | 65.59   |
| 694233   | LK204-25-IY-E       | 20 x 4 w/ keypad interface  | 1200 - 19,200      | 5.0V @ 16mA   | Y         | 1,7,10,14,15 | 3.9 x 2.4 x 1.2           | 3.0 x 1.0               | <del>\$91.29</del>  | 79.59   | 78.39   | 76.99   |
| 694276   | LK204-25-IY-V       | 20 x 4 w/ keypad interface  | 1200 - 19,200      | 5.0V @ 16mA   | Y         | 1,7,10,14,16 | 3.9 x 2.4 x 1.2           | 3.0 x 1.0               | <del>\$80.69</del>  | 71.99   | 70.29   | 68.99   |
| 694241   | LK204-25-R-E        | 20 x 4 w/ keypad interface  | 1200 - 19,200      | 5.0V @ 16mA   | Y         | 1,7,10,15,17 | 3.9 x 2.4 x 1.2           | 3.0 x 1.0               | <del>\$91.29</del>  | 79.59   | 78.39   | 76.99   |
| 694268   | LK204-25-R-V        | 20 x 4 w/ keypad interface  | 1200 - 19,200      | 5.0V @ 16mA   | Y         | 1,7,10,16,17 | 3.9 x 2.4 x 1.2           | 3.0 x 1.0               | <del>\$80.69</del>  | 71.99   | 70.29   | 68.99   |
| 694284   | LK204-25-V          | 20 x 4 w/ keypad interface  | 1200 - 19,200      | 5.0V @ 16mA   | Y         | 1,7,10,16    | 3.9 x 2.4 x 1.2           | 3.0 x 1.0               | <del>\$80.69</del>  | 71.99   | 70.29   | 68.99   |
| 694188   | LK204-25-WB         | 20 x 4 w/ keypad interface  | 1200 - 19,200      | 5.0V @ 16mA   | Y         | 1,7,10,19    | 3.9 x 2.4 x 1.2           | 3.0 x 1.0               | <del>\$78.79</del>  | 68.99   | 66.99   | 65.59   |
| 694196   | LK204-25-WB-E       | 20 x 4 w/ keypad interface  | 1200 - 19,200      | 5.0V @ 16mA   | Y         | 1,7,10,16,19 | 3.9 x 2.4 x 1.2           | 3.0 x 1.0               | <del>\$91.29</del>  | 79.59   | 78.39   | 76.99   |
| 694209   | LK204-25-WB-V       | 20 x 4 w/ keypad interface  | 1200 - 19,200      | 5.0V @ 16mA   | Y         | 1,7,10,16,19 | 3.9 x 2.4 x 1.2           | 3.0 x 1.0               | <del>\$80.69</del>  | 71.99   | 70.29   | 68.99   |
| 281391   | GLK12232-25-SM      | 122 x 32 w/ graphics        | 9600 - 115,000     | 5.0V @ 250mA  | Y         | 1,8          | 3.4 x 1.4 x 0.5           | 2.4 x 0.7               |                     | 68.99   | 67.99   | 65.49   |
| 694356   | GLK12232-25-SM-WB   | 122 x 32 w/ graphics        | 9600 - 115,000     | 5.0V @ 22mA   | Y         | 1,8,20       | 3.4 x 1.4 x 0.5           | 2.4 x 0.7               |                     | 68.99   | 67.99   | 66.09   |
| 281404   | GLK12232-25-WBL     | 122 x 32 w/ graphics        | 9600 - 115,000     | 5.0V @ 20mA   | Y         | 1,8          | 3.9 x 2.4 x 0.4           | 3.3 x 1.4               |                     | 74.99   | 73.99   | 71.19   |
| 694364   | GLK12232-25-WBL-WB  | 122 x 32 w/ graphics        | 9600 - 115,000     | 5.0V @ 18mA   | Y         | 1,8,20       | 3.9 x 2.4 x 0.4           | 2.7 x 0.8               |                     | 77.99   | 75.99   | 73.39   |
| 174182   | GLC24064            | 240 x 64 w/ graphics        | 1200 - 19,200      | 5.0V @ 31mA   | Y         | 1,3,6        | 7.1 x 2.6 x 0.7           | 5.2 x 1.5               |                     | 165.99  | 161.69  | 157.49  |
| 281412   | GLK24064-25         | 240 x 64 w/ graphics        | 9600 - 115,000     | 5.0V @ 20mA   | Y         | 1,9          | 7.1 x 2.6 x 1.1           | 5.0 x 1.3               | <del>\$192.99</del> | 176.99  | 175.99  | 174.79  |
| 694372   | GLK24064-25-GW      | 240 x 64 w/ graphics        | 9600 - 115,000     | 5.0V @ 35mA   | Y         | 1,9,12       | 7.1 x 2.6 x 0.7           | 5.0 x 1.3               | <del>\$183.99</del> | 168.99  | 160.99  | 153.99  |
| 694381   | GLK24064-25-WB      | 240 x 64 pixels w/ graphics | 9600 - 115,000     | 5.0V @ 35mA   | Y         | 1,9,19       | 7.1 x 2.6 x 0.7           | 5.0 x 1.3               |                     | 268.99  | 160.99  | 153.99  |

\* This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

† This product is a special order, non-cancelable, non-returnable and may take 2-4 weeks to ship.

## Serial LCD Displays

**Lower \$\$\$**

Scott Edwards ILM-216L



150990

Scott Edwards BPI-216N



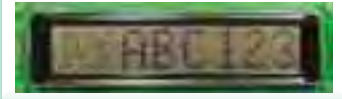
133129

Scott Edwards SGX-120L



158166

Scott Edwards BPP-440L



136485

| Part No. | Manufacturer  | Product No. | Characters x Lines | Serial Input (bps) | Input Voltage          | Backlight | Notes* | Module Size (W"xH"xD") | Display Size (W"xH") | Pricing |         |         |
|----------|---------------|-------------|--------------------|--------------------|------------------------|-----------|--------|------------------------|----------------------|---------|---------|---------|
|          |               |             |                    |                    |                        |           |        |                        |                      | 1       | 10      | 25      |
| 150990   | Scott Edwards | ILM-216L    | 16 x 2             | 1200 - 9600        | 4.8V-5.5V @ 5mA        | Y         | 1,2,5  | 3.2 x 2.0 x 0.5        | 2.8 x 1.0            | \$48.95 | \$44.09 | \$39.99 |
| 133129   | Scott Edwards | BPI-216N    | 16 x 2             | 2400 or 9600       | 4.8V - 5.5V @ 3mA      | N         | 1,2,11 | 3.1 x 1.4 x 0.7        | 2.8 x 1.0            | 59.95   | 53.99   | 48.99   |
| 158166   | Scott Edwards | SGX-120L    | 20 x 4 w/ graphics | 2400 or 9600       | 9V bat. or 5.0V @ 45mA | Y         | 1,2,5  | 3.1 x 1.9 x 0.8        | 2.6 x 1.1            | 119.95  | 107.99  | 103.00  |
| 136485   | Scott Edwards | BPP-440L    | 40 x 4             | 1200 - 9600        | 5.0V @ 10mA            | Y         | 1,2,11 | 7.5 x 2.2 x 0.9        | 6.7 x 1.7            | 149.95  | 143.55  | 136.37  |

\*1. For a power supply, Jameco recommends P/N 164101, pg 240

2. Includes instruction codes for character generation, cursor control, printing, etc. (Examples for Stamps in PBASIC included)

3. Manual and software included

4. Connect 16 modules using the same two wire interface

5. EEPROM stores text font, settings, and text screen

6. Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping, and auto scroll feature

7. Connect 127 modules on the same 2-wire interface

8. 122 x 32 pixel graphics display, text display using built-in or user supplied fonts, adjustable contrast, backlighting, and keypad interface

9. 240 x 64 pixel graphic display, text display using built-in or user supplied fonts, adjustable contrast, backlighting, and keypad interface

10. Built-in font provision for up to 8-user defined characters, software controlled brightness, use up to a 25-key keypad with one 10-key buffer, 6 general purpose outputs, horizontal or vertical bar graphs

11. LCD Serial Backpack\* accepts RS232, CMOS or TTL signal

12. Grey text/white background

13. Built-In font provision for up to 8-user define characters, software controlled contrast and brightness, use of up to 12-key with 10-key buffer, horizontal or vertical bar graphs

14. Inverse yellow

15. Extended temperature

16. Wide voltage range +9 to +15VDC

17. Inverse red

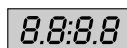
18. Wide voltage range with efficient switching power supply (+9 to +35VDC)


19. White text/blue background



20. Color of illumination: white/ice blue

## VL 0.5" High 4-Digit Field Effect LCD Display

- Compatible with socket P/N 78642 (2), pg 148
- Pin spacing: 0.1" centers
- 40-pin package (no connector required)
- Digital multimeters, thermometers, pressure gauges, timers, frequency counters, and clocks (12 or 24 hour format)



| Part No. | Product No.   | Size (W x H x D)         | 1       | 10      | 25      |
|----------|---|--------------------------|---------|---------|---------|
| 17110    | 402-DP-RC-S  | 2.0" x 1.2" x 0.1" ..... | \$14.95 | \$13.49 | \$12.15 |

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

Color Code Legend

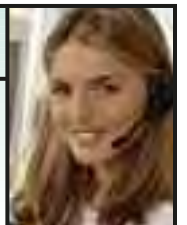
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## Parallel LCD Displays



- For detailed specification sheets, please visit [www.Jameco.com](http://www.Jameco.com).
- 90-day Jameco warranty

Quantity SAVE

### EPSON EA-D16015AR

- 16 x 1 characters
- 2.5 x 0.5" display



644025

### Ampire AC-162A

- 16 x 2 characters • 2.5" x 0.7" display



171716

### Hantronix HDM716216H-4-H0AF

- 16 x 2 characters • 3.3" x 0.9" display



658881

### Hantronix HDM716216H-B-P00P

- 16 x 2 characters • 2.4" x 0.6" display



658890

### Hantronix HDM716216L-7-8C0

- 16 x 2 characters • 3.9" x 0.9" display



658988

### PicVue PVC160206QYL04

- 16 x 2 characters • 2.4" x 0.6" display



365982

### Optrex DM16433

- 16 x 4 characters
- 2.4" x 1.0" display



210761

### Samsung 9936

- 20 x 1 characters • 6.5" x 1.3" display



206615

### Hantronix HDM20216H-3-001P

- 20 x 2 characters • 3.3" x 0.7" display



658902

### Ampire AC-202A

- 20 x 2 characters • 3.3" x 0.7" display



171724

### Hantronix HDM20416H-300

- 20 x 4 characters
- 3.7" x 0.6" display



658873

### Solomon LM1200SGR

- 24 x 2 characters • 3.7" x 0.7" display



320101

### Solomon LM1030SGR

- 40 x 2 characters • 6.0" x 0.6" display



320039

### Ocular OM4021-WGS-01

- 40 x 2 characters • 6.0" x 0.6" display



277325

### Optrex 20-20191-2

- 40 x 2 characters • 5.8" x 0.5" display



215159

### Seiko Instruments DMC4024

- 40 x 4 characters • 5.5" x 0.9" display



652332

### Hantronix HDM64GS12L-4-N31S

- 128 x 64 characters
- 2.4" x 1.3" display



658953

### PicVue PVG240602A

- 240 x 64 pixels • 5.2" x 1.5" display



277350

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shipment.

| Part No. | Manufacturer | Product No.       | Characters x Lines | Character Font | Input Data     | Input Voltage | Backlight | Notes* | Module Size (W"xH"xD") | Display Size (W"xH") | Pricing |        |        |
|----------|--------------|-------------------|--------------------|----------------|----------------|---------------|-----------|--------|------------------------|----------------------|---------|--------|--------|
|          |              |                   |                    |                |                |               |           |        |                        |                      | 1       | 10     | 25     |
| 644025   | Epson        | EA-D16015AR       | 16 x 1             | 5 x 7          | 8-bit          | 5.0V @ 1.0mA  | N         | —      | 3.2 x 1.4 x 0.3        | 2.5 x 0.5            | \$9.95  | \$8.49 | \$7.95 |
| 171716   | Ampire       | AC-162A           | 16 x 2             | 5 x 8          | 8-bit          | 5.5V @ 1.5mA  | Y         | 3, 5   | 3.4 x 1.2 x 0.5        | 2.5 x 0.7            | 13.99   | 13.35  | 12.65  |
| 658881   | Hantronix    | HDM716216H-4-H0AF | 16 x 2             | 5 x 7          | 8-bit          | 5.0V @ 2.2mA  | N         | 5      | 4.8 x 1.7 x 0.4        | 3.9 x 0.9            | 11.95   | 10.49  | 7.87   |
| 658890   | Hantronix    | HDM716216H-B-P00P | 16 x 2             | 5 x 7          | 8-bit          | 5.0V @ 2.2mA  | N         | 5      | 3.3 x 1.7 x 0.4        | 2.4 x 0.6            | 11.95   | 10.49  | 8.95   |
| 618003   | Hantronix    | HDM716216H-5-3005 | 16 x 2             | 5 x 7          | 8-bit          | 5.0V @ 1.25mA | N         | —      | 3.2 x 1.4 x 0.3        | 2.5 x 0.5            | 11.39   | 9.25   | 8.33   |
| 658988   | Hantronix    | HDM716216L-7-8C0  | 16 x 2             | 5 x 7          | 8-bit          | 5.0V @ 2.0mA  | Y         | 5      | 4.8 x 1.7 x 0.6        | 3.9 x 0.9            | 16.95   | 14.95  | 11.95  |
| 365982   | PicVue       | PVC160206QYL04    | 16 x 2             | 5 x 8          | 8-bit          | 5.0V @ 1.6mA  | Y         | —      | 3.3 x 1.2 x 0.5        | 2.4 x 0.63           | 12.69   | 10.79  | 9.45   |
| 210761   | Optrex       | DM16433           | 16 x 4             | 5 x 8          | 4-bit or 8-bit | 6.5V @ 2.2mA  | N         | 1, 5   | 3.4 x 2.4 x 0.3        | 2.4 x 1.0            | 22.95   | 19.95  | 18.69  |
| 206615   | Samsung      | 9936              | 20 x 1             | 5 x 7          | 4-bit or 8-bit | 5.5V @ 3.0mA  | N         | 2      | 7.2 x 1.6 x 0.4        | 6.5 x 1.3            | 17.99   | 15.29  | 11.45  |
| 658902   | Hantronix    | HDM20216H-3-001P  | 20 x 2             | 5 x 7          | 8-bit          | 5.0V @ 2.2mA  | N         | 5      | 4.6 x 1.5 x 0.4        | 3.3 x 0.7            | 18.95   | 15.95  | 14.49  |
| 658970   | Hantronix    | HDM20216L-1-G30F  | 20 x 2             | 5 x 7          | 8-bit          | 5.0V @ 2.4mA  | Y         | 5      | 4.6 x 1.5 x 0.6        | 3.4 x 0.7            | 18.95   | 16.95  | 14.49  |
| 171724   | Ampire       | AC-202A           | 20 x 2             | 5 x 8          | 8-bit          | 5.0V @ 1.7mA  | Y         | 3, 5   | 4.6 x 1.5 x 0.4        | 3.3 x 0.7            | 24.95   | 22.49  | 20.25  |
| 658873   | Hantronix    | HDM20416H-300     | 20 x 4             | 5 x 7          | 8-bit          | 5.0V @ 2.2mA  | N         | 5      | 3.9 x 2.7 x 0.4        | 3.7 x 0.6            | 24.95   | 22.49  | 18.95  |
| 658911   | Hantronix    | HDM24216L-2-E30P  | 24 x 2             | 5 x 7          | 8-bit          | 5.0V @ 1.4mA  | Y         | 5      | 4.6 x 1.4 x 0.6        | 2.4 x 0.6            | 19.95   | 17.95  | 15.49  |
| 320101   | Solomon      | LM1200SGR         | 24 x 2             | 5 x 7          | 8-bit          | 5.0V @ 3.0mA  | N         | 5      | 4.6 x 1.4 x 0.4        | 3.7 x 0.7            | 15.59   | 13.25  | 9.94   |
| 320039   | Solomon      | LM1030SGR         | 40 x 2             | 5 x 7          | 8-bit          | 5.0V @ 3.0mA  | N         | 5      | 7.2 x 1.2 x 0.3        | 6.0 x 0.6            | 22.15   | 18.83  | 14.12  |
| 277325   | Ocular       | OM4021-WGS-01     | 40 x 2             | 5 x 8          | 8-bit          | 5.0V @ 2.5mA  | Y         | 5      | 7.2 x 1.3 x 0.6        | 6.0 x 0.6            | 22.45   | 19.13  | 14.34  |
| 215159   | Optrex       | 20-20191-2        | 40 x 2             | 5 x 8          | 8-bit          | 5.5V @ 5mA    | Y         | 4      | 7.2 x 1.4 x 0.4        | 5.8 x 0.5            | 22.45   | 19.08  | 14.31  |
| 658831   | Hantronix    | HDM40216H-4-S90P  | 40 x 2             | 5 x 7          | 8-bit          | 5.0V @ 2.2mA  | N         | 5      | 7.2 x 1.3 x 0.4        | 6.1 x 0.6            | 24.95   | 22.49  | 18.95  |
| 658929   | Hantronix    | HDM40216H-4-S9RP  | 40 x 2             | 5 x 7          | 8-bit          | 5.0V @ 2.2mA  | N         | 5      | 7.2 x 1.3 x 0.4        | 6.1 x 0.6            | 24.95   | 22.49  | 18.95  |
| 658937   | Hantronix    | HDM40216L-4-LCWF  | 40 x 2             | 5 x 7          | 8-bit          | 5.0V @ 3.0mA  | Y         | 5      | 7.2 x 1.3 x 0.6        | 6.1 x 0.6            | 32.95   | 29.49  | 24.95  |
| 652332   | Seiko Inst.  | DMC4024           | 40 x 4             | 5 x 8          | 8-bit          | 5.0V @ 12mA   | N         | —      | 7.5 x 2.1 x 0.4        | 5.5 x 0.9            | 39.95   | 34.95  | 28.95  |
| 658953   | Hantronix    | HDM64GS12L-4-N31S | 128 x 64           | 128 x 64       | 8-bit          | 5.0V @ 2.0mA  | Y         | 6      | 3.0 x 2.1 x 0.4        | 2.4 x 1.3            | 27.95   | 24.95  | 21.49  |
| 277350   | PicVue       | PVG240602A        | 240 x 64 pixels    | 240 x 64       | 8-bit          | 5.0V @ 6.0mA  | N         | 6      | 7.1 x 2.6 x 0.4        | 5.2 x 1.5            | 55.75   | 51.09  | 38.32  |

\*1. Control LSI HD44780 or equivalent and column driver MSM5259 or equivalent; 2. Built-in controller HD44780; 3. Controller KS0066U or equivalent; 4. Column driver: KS0063B;

5. For a power supply Jameco recommends P/N 164101, pg 240; 6. Dot Graphic LCD display

RoHS compliant product

This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.

**Legacy Intel® Desktop Processors**

| Part No. | Description                    | Speed (MHz) | Package   | 1       | 10      |
|----------|--------------------------------|-------------|-----------|---------|---------|
| 311204   | Intel Celeron® processor ♣     | 800         | FCPGA-370 | \$59.85 | \$53.85 |
| 183118   | Intel Pentium® III processor   | 600         | Slot 1    | 99.95   | 96.43   |
| 151651   | Intel Pentium® II processor    | 300         | Slot 1    | 89.95   | 85.45   |
| 190060   | Intel Pentium® II w/ heat sink | 233         | Slot 1    | 89.95   | 67.46   |
| 150501   | Intel Pentium MMX® processor ♣ | 233         | 376/PGA   | 69.95   | 62.95   |
| 118421   | Intel 486DX2 processor ♣       | 66          | 168/PGA   | 19.95   | 16.96   |

♣ Pull = Extra Savings

**Legacy 3.5" Hard Disk Drives\***

| Part No. | Capacity | Description      | Warranty | 1       | 10      |
|----------|----------|------------------|----------|---------|---------|
| 151036   | 3.2GB ♣  | EIDE/Ultra DMA33 | 1 year   | \$39.95 | \$34.95 |
| 151044   | 4.3GB ♣  | EIDE/Ultra DMA33 | 1 year   | 49.95   | 45.95   |
| 146333   | 2.5GB ♣  | EIDE/FAST ATA-2  | 1 year   | 33.29   | 29.95   |
| 124978   | 1.27GB ♣ | IDE              | 1 year   | 29.95   | 26.95   |
| 118949   | 850MB ♣  | IDE              | 1 year   | 49.95   | 37.46   |
| 115764   | 425MB ♣  | IDE              | 3 mos.   | 45.95   | 43.65   |

\* Manufacturers may vary &amp; capacity may exceed specification ♣ Pull = Extra Savings

**1.44MB 3.5" Internal Floppy Disk Drives**

- IBM PC/XT and higher compatibles
- Compatible with DOS versions 3.3 or higher
- Automatically determines if disk is high or low density
- Size: 4.0"W x 5.9"D x 1.0"H • Weight: 1.4 lbs.

♣ Pull = Extra Savings

| Part No. | Product No. | Mfr.    | Color | 1       | 10      |
|----------|-------------|---------|-------|---------|---------|
| 115490   | FD235       | TEAC    | Beige | \$19.95 | \$17.95 |
| 189165   | — ♣         | Varies  | Beige | 10.95   | 9.50    |
| 249367   | MPF920-Z    | Sony    | Beige | 16.95   | 12.71   |
| 453704   | FD235HF ♣   | TEAC    | Black | 58.95   | 55.81   |
| 661108   | D359M3D     | Mitsumi | Black | 20.95   | 18.95   |

**CPU Heat Sinks and Fans\*\* Quantity SAVE**

| Part No. | Description                            | Size (H" x W" x D") | 1       | 10     |
|----------|--|---------------------|---------|--------|
| 206244   | Heat sink w/ dual fan slot (SECC 2)    | 5.25 x 1.95 x 1.30  | \$12.95 | \$9.71 |
| 319951   | Heat sink w/ fan for PIII slot 1       | 2.00 x 4.90 x 8.50  | 9.85    | 7.39   |
| 181278   | Heat sink w/ fan for socket 7 (ATX)    | 2.12 x 2.05 x 1.67  | 8.49    | 6.37   |
| 661087   | Heat sink w/ fan for socket 370        | 1.55 x 2.36 x 2.44  | 13.55   | 12.19  |
| 190545   | Heat sink w/ fan for socket 370        | 2.45 x 2.42 x 2.10  | 13.55   | 12.19  |
| 645482   | Heat sink w/ fan for socket 370        | 2.04 x 2.04 x 1.06  | 10.95   | 9.49   |
| 319185   | Heat sink w/ fan for socket 7 & 370    | 1.38 x 2.36 x 2.59  | 7.65    | 5.74   |
| 129226   | Heat sink for 486 CPU – adhesive back  | 1.70 x 1.63 x 0.36  | 2.95    | 2.65   |
| 174115   | Heat sink w/ fan for 486 CPU w/ snap†  | 1.93 x 1.96 x 0.93  | 3.95    | 3.56   |
| 684748   | Heat sink w/ fan for socket 7 (AT/ATX) | 1.00 x 2.60 x 2.30  | 8.99    | 8.59   |
| 308742   | Heat sink w/ fan for 586 CPU w/ snap†  | 0.73 x 2.05 x 1.94  | 10.25   | 9.25   |

\*\* See website for photos † 14" lead wires

**Mounting Kits**

Designed to mount most 3.5" media devices into standard 5.25" half height bays.

| Part No. | Cross Ref. No. | Description                               | 1      | 10     | 25     |
|----------|----------------|---|--------|--------|--------|
| 180857   | HDB35          | 3.5" hard drive mount kit (short)         | \$3.35 | \$2.95 | \$2.21 |
| 32088    | SMK            | 3.5" to 5.25" mount kit (beige faceplate) | 5.89   | 5.29   | 4.79   |

**Thermoelectric Cooler Chips**

- Cools down to -30°C (dependent on external temp.)
- Heat or cool by changing direction of current
- 20 AWG wire leads, 4" long
- Temperature = 60°C max.
- Current: 4A max. (172056: 8a max.)

| Part No. | Cross Ref. No. | Volts        | Watts | Couples* | Size (LxWxT)       | 1       | 10      |
|----------|----------------|--------------|-------|----------|--------------------|---------|---------|
| 172031   | TEC30          | 8.4VDC max.  | 19.7  | 71       | 1.2" x 1.2" x 0.2" | \$19.95 | \$17.95 |
| 172056   | TEC50          | 15.4VDC max. | 79.1  | 127      | 2.0" x 2.0" x 0.2" | 33.75   | 29.35   |

\* Couples: # of P&amp;N type semiconductor pairs connected electrically in series

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

♻️ RoHS compliant product

⊕ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

Color Code Legend

New Sale Lower\$ QtySave

**MICRON****Memory Modules**

| Part No. | Product No.          | Capacity | Description | Config.  | Pins | 1        | 10       |
|----------|----------------------|----------|-------------|----------|------|----------|----------|
| 699528   | MT8LSDT3264HG-133D2♣ | 256MB    | 133MHz      | 32M x 64 | 144  | \$119.99 | \$109.99 |
| 699536   | MT8LSDT3264HG-13ED2♣ | 256MB    | 133MHz      | 32M x 64 | 144  | 125.49   | 119.57   |

**Legacy Memory Modules****Quantity SAVE**

| Part No. | Cross Ref. No. | Capacity | Description         | Config.  | Pins | 1       | 10      |
|----------|----------------|----------|---------------------|----------|------|---------|---------|
| 148419   | 16MBX64SDRAM   | 128MB    | 10ns Syn. DRAM DIMM | 16M x 64 | 168  | \$65.95 | \$59.95 |
| 148451   | JEED07264      | 64MB     | 60ns SIMM EDO       | 16M x 32 | 72   | 30.95   | 28.95   |
| 148460   | 8MBX36-60      | 32MB     | 60ns SIMM           | 8M x 36  | 72   | 40.95   | 30.71   |
| 148443   | JEED07232      | 32MB     | 60ns SIMM EDO       | 8M x 32  | 72   | 43.95   | 32.96   |
| 130729   | JEED07208      | 8MB      | 60ns SIMM EDO       | 2M x 32  | 72   | 3.95    | 3.58    |
| 41751    | 421000A9B-70   | 1MB      | 70ns SIMM           | 1M x 9   | 30   | 4.95    | 3.71    |

**IntelliMover Kit**

The IntelliMover kit lets you quickly and easily move email, music, photos, files, folders, settings and more from your old PC to a new PC. You can select file types, and settings that you want to move, so you do not end up cluttering your new PC with unwanted files.

- Transfers data and settings from one product version to another (e.g. Microsoft® Word 97 to Word XP)
- Transfers data and settings across operating systems
- Integrates intelligently on your new PC—there's no over writing of drivers or data files
- "Drag and Drop" individual files and folders between two PC's with the IntelliMover's file transfer utility and either data transfer cable

| Part No. | Description              | 1       | 10      |
|----------|--------------------------|---------|---------|
| 689910   | IntelliMover kit with CD | \$24.95 | \$22.45 |

**Index of Electronics-Industry Books**

| Part No. | Description  | Page |
|----------|--|------|
| 215061   | Easy Microcontrol'n, Beginner's Guide                              | 5    |
| 137162   | Electric Motors and Control Techniques                             | 163  |
| 1581222  | LAB-X1 Tutorial & Resource Book                                    | 309  |
| 215052   | Microcontrol'n Apps, PIC Microcontroller Applications              | 5    |
| 200168   | PIC BASIC Programming and Projects                                 | 6    |
| 174650   | PIC Microcontroller Project Book, Beginner's Guide                 | 5    |
| 183046   | Programming and Customizing the PIC                                | 5    |
| 210497   | Serial Communications PIC Applications                             | 5    |
| 210489   | Time'n and Count'n, Intermediate Level PIC Apps                    | 5    |
| 236945   | Complete Embedded Ethernet and Internet                            | 265  |
| 154771   | Serial Port Complete   | 260  |
| 171900   | USB Complete   | 258  |
| 174481   | Electronic Pocket Reference  | 49   |
| 677994   | Electronics Manufacturing  | 298  |
| 667391   | Fabricating Printed Circuit Boards                                 | 313  |
| 126199   | How to Test Everything Electronic                                  | 283  |
| 677986   | Implementing Lead-free Electronics                                 | 300  |
| 677951   | Modern Solder Technology for Competitive Electronics Manufacturing | 298  |
| 355231   | Pocket PC Reference Book   | 261  |
| 88225    | TTL Logic Data Book, Texas Instruments                             | 18   |
| 136080   | Troubleshooting & Repairing Consumer Electronics                   | 36   |

Computer



## Removable IDE HDD Enclosures For 3.5" Drive Bay

- For quick drive swapping
- Power LEDs
- Keylock for security

196040:

- Size: 5.8"W x 8.5"D x 1.5"H
- Weight: 1.2 lbs.

319775:

- Size: 5.8"W x 8.9"D x 1.6"H
- Weight: 1.32 lbs.

196031:

- Size: 4.1"W x 7.5"D x 1.6"H • Weight: 0.8 lbs.

Includes: Inner cable with IDE connector

| Part No. | Description         | 1       | 10      | 25      |
|----------|---------------------|---------|---------|---------|
| 196040   | IDE encl. w/ insert | \$25.15 | \$18.85 | \$14.65 |
| 319775   | IDE encl. w/ insert | 15.55   | 14.79   | 11.09   |
| 196031   | Insert for 196040   | 19.95   | 16.96   | 12.72   |



Quantity SAVE

## External IDE HDD Enclosure with Parallel Interface

An external HDD enclosure for IDE hard drives with a parallel port interface to be connected to a PC or laptop. No drivers needed. Windows® 98 and above will automatically detect hard disk drive.

- Parallel port interface
- Built-in fan and 110V power supply

Includes: Parallel cable and power cord

| Part No. | Description            | 1       | 5       |
|----------|------------------------|---------|---------|
| 249316   | HDD external enclosure | \$17.95 | \$16.16 |



## 3.5" Screwless USB Hard Drive Enclosure

- Screwless design
- USB 2.0 compliant
- IDE interface supports ATA, PIO, DMA, and UDMA hard drives
- Rugged aluminum body
- Plug and play, hot-swapping capability
- Power-on and read/write access LED indicators
- Size: 8.4"L x 4.7"W x 1.4"H

Includes: USB 2.0 cable, 12VDC @ 1.6A power supply and CD-ROM drivers

Blue Part No. = Limited Quantity Available

| Part No. | Mfr. Part No. | 1       | 5       |
|----------|---------------|---------|---------|
| 344735   | SD-U2PLA-35   | \$31.45 | \$29.89 |



## USB Complete

**Lakeview** (3rd Edition) Provides an easy-to-use interface for computer peripherals. The book covers topics such as what USB can do, transfer types, chip choices, what's inside a USB controller, writing firmware, how the host communicates and more. (572 pages, 2005)

- Size: 7.0" x 9.0"
- Weight: 1.9 lbs.

| Part No. | Description       | Price   |
|----------|-------------------|---------|
| 171900   | USB Complete Book | \$49.95 |



## Front Panel Access Port

Enjoy easy up front access to all your most used ports, including USB, IEEE 1394, audio, and serial ports, without moving the PC.

- 2 USB; 1 IEEE 1394; Line-In; Line-Out; RS-232 (9-pin male)



Tower not included

| Part No. | Description      | 1       | 10      |
|----------|------------------|---------|---------|
| 208004   | Front panel port | \$34.95 | \$32.45 |

## PS/2 Cable

- For use with switchbox P/N 149391, pg 263

| Part No. | Description   | 1       | 10      |
|----------|---------------|---------|---------|
| 204062   | 6' PS/2 cable | \$16.95 | \$15.29 |



## Digital Video Interface Cable

- DVI cable for flat panel LCD monitors and high-end video graphics cards
- Connector: DVI-D single link type
- Length: 6'

Quantity SAVE

| Part No. | Description | 1       | 10     | 100    |
|----------|-------------|---------|--------|--------|
| 320346   | DVI cable   | \$11.49 | \$9.95 | \$7.46 |



## CD-ROM Audio Cables



Quantity SAVE

| Part No. | Connection from Sound Blaster to | Length | 1      | 10     | 50     |
|----------|----------------------------------|--------|--------|--------|--------|
| 127546   | Sony/MPC2                        | 18"    | \$2.95 | \$2.51 | \$1.88 |
| 168612   | Universal                        | 18"    | 4.95   | 4.46   | 3.35   |

## CD Accessories



172179



208514

Blue Part No. = Limited Quantity Available

| Part No. | Description           | 1      | 5      | 10     |
|----------|-----------------------|--------|--------|--------|
| 172179   | Single jewel case     | \$0.20 | \$0.15 | \$0.14 |
| 208514   | Paper envelope 25 pk. | 2.49   | 2.25   | 1.99   |

## PCMCIA Smart Card Terminal

- High quality PCMCIA smart card terminal for laptops
- CT-API support; OCF compatible
- Supports maximal smart card speed
- Card power supply: 60mA max.
- Speed: up to 423kbps
- Clock speed: up to 8MHz
- Supports Windows® XP/2000/98/ME/NT4.0

| Part No. | Product No. | 1        | 10      | 100     |
|----------|-------------|----------|---------|---------|
| 577344   | SR-4044     | \$101.79 | \$96.70 | \$71.38 |

This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.



## USB Thumb Drives

Thumb drives are compact and fit easily in your pocket or hang around your neck. Portable and lightweight, no external power needed. No drivers necessary for Windows® ME and above.

- 10 year data retention
- Size: 2.9"L x 0.7"W x 0.4"H
- Windows® 98/98SE drivers are available at [www.Jameco.com](http://www.Jameco.com)

Blue Part No. = Limited Quantity Available

| Part No. | Description | 1       | 10      |
|----------|-------------|---------|---------|
| 217787   | 128MB       | \$25.39 | \$22.85 |
| 687682   | 128MB (PNY) | 17.95   | 16.49   |
| 687738   | 128MB       | 15.95   | 13.95   |
| 217795   | 512MB       | 56.45   | 50.82   |



## Mobile USB Fan/Light

Take advantage of a great deal on this innovative personal USB-powered fan and light for laptop computing! You'll enjoy the added comfort of features like a flexible gooseneck mount. Fan runs on a quiet motor with soft nylon blades. Mobile USB light allows you to illuminate your keyboard during.



| Part No. | Description      | Price  |
|----------|------------------|--------|
| 256461   | Mobile USB fan   | \$8.99 |
| 256436   | Mobile USB light | 10.55  |

## Digital USB Voice Recorder

Pocket "secretary" captures all your great ideas.

Record up to 396 addressable messages totaling 9 hours (SP) or 18 hours (LP). They can be meetings, phone conversations, or audio from external devices, all in flawless digital clarity. USB connectivity quickly downloads your recordings to your PC.

Includes: Earphone, external (meeting) microphone, telephone adapter, audio cable, PC software, USB cable, and hand strap.

| Part No. | Description                   | Price    |
|----------|-------------------------------|----------|
| 237198   | USB voice recorder, 9-18 hrs. | \$108.95 |



## AverKey Pro PC-to-TV Converter Box

- Converts VGA video or Macintosh® 640 x 480 to standard NTSC
- Built-in flicker filter
- Resolution: 800 x 600
- TV brightness control
- Compatible w/ Microsoft® Windows® 3.0 and higher
- Weight: 2.2 lbs.

- Two-year warranty

System requirements: VGA-based PC, DOS 3.0 or higher, 640kb RAM or larger

Includes: PC-to-TV converter, adapter, cables & manual

| Part No. | Description      | 1       | 10      |
|----------|------------------|---------|---------|
| 167193   | Video signal pro | \$89.95 | \$81.65 |



Our enhanced website offers over 65,000 new products. Find products quickly and order them easily!

## Flat Panel Speaker System



- Magnetically shielded
- Built-in amplifier
- Designed for multimedia use
- Low distortion
- Ultra thin satellite speaker and 3" subwoofer cone type speaker
- Frequency response: 80Hz-16kHz
- Power output: speakers - 1W + 1W (RMS) subwoofer - 5W (RMS)
- Front access LED, power, and volume controls
- Size: satellite - 5.0"W x 7.5"H x 2.5"D subwoofer - 5.75"W x 5.5"H x 6.6"D

**Includes:** Power adapter

| Part No. | Description              | 1       | 10      |
|----------|--------------------------|---------|---------|
| 382740   | Flat panel speaker ..... | \$18.89 | \$17.49 |

## PC Speakers

Perfect for desktop PCs with limited amount of space. Compatible with any desktop PC.

- 3.5mm male stereo plug
- Size: 4.7"H x 3.0"W x 4.0"D



**Quantity SAVE**

| Part No. | Cross Ref. No.  | 1       | 5       | 10            |
|----------|-----------------|---------|---------|---------------|
| 311079   | 5065-5746 ..... | \$13.59 | \$11.55 | <b>\$8.66</b> |

## Hands-Free Condenser Microphone

- Clip on microphone
- Cord length: 8'
- Connector: 3.5mm male stereo plug
- Size: 1.7"L x 1.3"W x 0.9"H



**Quantity SAVE**

| Part No. | Description      | 1      | 10     | 100           |
|----------|------------------|--------|--------|---------------|
| 319759   | Microphone ..... | \$3.89 | \$3.31 | <b>\$2.48</b> |

## Hands-Free Condenser Microphone

- Cord length: 8'
- Connector: 3.5mm male stereo plug
- Size: 1.9"L x 1.2"W x 0.3"H
- One-year warranty

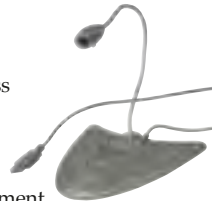


| Part No. | Description      | 1      | 10     | 50     |
|----------|------------------|--------|--------|--------|
| 135247   | Microphone ..... | \$4.49 | \$3.99 | \$3.65 |

## E-Mail Desktop Microphone

*Add your voice to e-mail messages, with the touch of a button!*

This revolutionary desktop device will change the way you use e-mail! Simply press a button and speak into the omnidirectional condenser mic, and the technology does the rest. Included software facilitates file-management.



| Part No. | Description                     | Price   |
|----------|---------------------------------|---------|
| 315070   | E-mail desktop microphone ..... | \$41.95 |

# Monitors & Video Controllers

## 10" B&W Security Monitor w/ Audio

- EIA format
- 9" viewable screen
- Resolution: 700 line
- Push down front panel for volume and power switch
- BNC jacks for audio/video input
- Input voltage: 120VAC @ 60Hz (2-prong 5' cable)
- Size: 9.3"W x 12.0"D x 9.1"H
- Weight: 15 lbs.



**Includes:** Manual

| Part No. | Description           | 1        | 10      |
|----------|-----------------------|----------|---------|
| 253067   | 10" B/W monitor ..... | \$109.05 | \$89.95 |

## 5.6" Color TFT Monitor

**NTSC Format**

- TFT color LCD display
- 224 x 640 pixel display resolution
- Built-in 1 watt speaker
- Brightness, color and volume adjustments
- Video input: 1.0Vp-p; 75Ω
- Audio input: 2Vp-p; 2kΩ
- Size: 6.1"W x 1.2"D x 4.8"H
- Weight: 2.6 lbs.



**Includes:** RCA cable, mounting stand with hardware and 12VDC @ 500mA power supply

| Part No. | Description                  | 1        | 10       |
|----------|------------------------------|----------|----------|
| 201702   | 5.6" TFT color monitor ..... | \$279.95 | \$259.95 |

## 4" TFT LCD Monitor

**NTSC Format**

- TFT color LCD
- Resolution 234 x 383dpi
- Backlight: cold cathode fluorescent lamp
- Power source: 12VDC @ 400mA
- 5" long lead wire with 4-position Molex-type power connector
- Tint color and brightness adjustable
- Size: 4.1"L x 3.3"W x 0.7"H (display)
- Size: 4.7"L x 3.3"W x 1.3"H (unit)
- Weight: 0.7 lbs.



| Part No. | Description                | 1        | 10       |
|----------|----------------------------|----------|----------|
| 172742   | 4" color LCD monitor ..... | \$159.95 | \$149.95 |

## XBOB-NC Video Text Module

XBOB integrates Decade's third-generation OSD technology into a convenient plug & play format. The command set is nearly identical to that of our popular BOB-3 module (see right), and XBOB includes all of the optional circuitry described in the BOB-3 Application Guide. XBOB lets your PC display up to 680 characters on standard video monitors and TV sets. With 63 user-definable character patterns, XBOB supports pseudo-graphics and multiple languages. XBOB generates video on-board, or automatically genlocks to your video source and superimposes characters over the image. Printable characters and commands control XBOB through a fast RS-232 data link, much like a simple serial printer.



- Higher display density; 40x17 characters (680 max.)
- Horizontal (1 line) and vertical smooth scrolling (up to 16 lines)
- Stand-alone operation, for simple source ID or fixed reticle applications
- Improved automatic video mode control

| Part No. | Description                  | 1        | 10       |
|----------|------------------------------|----------|----------|
| 283768   | XBOB video text module ..... | \$189.95 | \$179.99 |
| 237243   | 9VDC power supply .....      | 2.35     | 2.15     |
| 283776   | Serial cable .....           | 9.95     | 8.95     |

## BOB-3 Video Text Module



BOB-3 is Decade's third-generation low-cost video text overlay module. BOB-3 lets your microcontroller or PC display up to 680 characters on standard video monitors and TV sets. With 63 user-definable characters, BOB-3 supports pseudo-graphics and multiple languages. BOB-3 generates video on-board, or automatically genlocks to your video source and superimposes characters over the image. Printable characters and commands control BOB-3 through a fast RS-232 style data link, much like a simple serial printer. BOB-3 is compatible with most microcontroller chips and modules, including the BASIC Stamp.

- Higher display density; 40x17 characters (680 max.)
- 254 ROM character patterns plus 63 user-definable RAM characters
- Character size control
- Horizontal (1 line) and vertical smooth scrolling (up to 16 lines)
- Faster & more reliable host communication
- Software-controlled digital outputs (6)
- Improved automatic video mode control

| Part No. | Description                   | 1       | 10      |
|----------|-------------------------------|---------|---------|
| 283733   | BOB-3 video text module ..... | \$99.95 | \$94.95 |

## BOB-4 Video Text Module





**NEW**

BOB-4 is Decade's fourth-generation low-cost video information overlay module.

- Simple hookup (DC, serial data, video I/O)
- Prints plain ASCII text in default configuration
- High display density; up to 480x240 (NTSC) or 480x288 (PAL)
- Arbitrary font sizes and proportional font support
- Vector graphics drawing commands
- Industry-standard ANSI control protocol (ECMA-048)
- Text crawl (single-line smooth horizontal scroll)
- Async, Synchronous, and SPI host communication options
- Automatic video mode control (local/genlock)
- Customer-configurable video standards (NTSC/PAL)
- Stand-alone operation for simple source ID, target reticle, etc.
- Software-controlled digital outputs (5)
- Consumes only 1/2W at +5VDC
- Extended production lifetime; no OSD chips!
- Firmware can be upgraded in the field

| Part No. | Description                   | 1       | 10      |
|----------|-------------------------------|---------|---------|
| 1537475  | BOB-4 video text module ..... | \$99.95 | \$94.95 |

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)



## USB Interface Card

Quantity SAVE **SALE**

| Part No. | Manufacturer | Cross Ref. No. | Bus Type | Ports         | Connectors | Product Description  | 1       | 10      |
|----------|--------------|----------------|----------|---------------|------------|--|---------|---------|
| 687658   | —            | IOC-3500       | PCI      | 4 ext / 1 int | USB        | 32-bit, PCI, VT6202/6212 USB 2.0 Host controller chip, REV 1.1 compliant | \$14.95 | \$14.19 |

## Network Interface Cards

|        |       |              |        |   |       |  |         |                   |
|--------|-------|--------------|--------|---|-------|--|---------|-------------------|
| 285510 | —     | 905B ♣       | PCI    | 1 | RJ-45 | IEEE 802.3 and 802.3u, N-way 10/100 auto negotiation.  | \$11.99 | <del>\$8.99</del> |
| 285528 | —     | GD82559 ♣    | PCI    | 1 | RJ-45 | IEEE 802.2 and 802.3 compliant, 6kB cache on board, 10/100 auto negotiation, supports Windows® 95/98/2000/NT3.51/NT4.0.  | 13.19   | 9.89              |
| 308769 | 3-COM | 3C509B-TPO ♣ | ISA    | 1 | RJ-45 | IEEE 802.3i (10Base-T) and IEEE 802.3 (10Mbps) compliant.  | 17.49   | 15.95             |
| 355039 | GetOn | C130         | PCMCIA | — | Wi-Fi | 32-bit cardbus interface, IEEE 802.11b compliant, wireless data-rate (1Mbps to 11Mbps), supports Windows® 98/2000/ME/XP. | 17.59   | <del>13.19</del>  |

♣ Pull = Extra Savings

## Serial Interface Cards

|        |      |             |     |   |      |  |         |                   |
|--------|------|-------------|-----|---|------|--|---------|-------------------|
| 171362 | —    | 4025A ⚡     | PCI | 1 | DB9  | 32-byte FIFO, 921kb/sec transfer rate, supports IRQ sharing, single 16C550.  | \$38.95 | \$35.95           |
| 171555 | —    | 99378 ⊕     | ISA | 2 | DB9  | 16-byte FIFO, 921kb/sec transfer rate, IRQ 3/5/7/9/10/11/15 and address jumper configurable, dual 16C550 DB9 male. | 24.95   | 21.85             |
| 172006 | —    | 99467 ⚡     | PCI | 2 | DB9  | 32-byte FIFO, 921kb/sec transfer rate, supports IRQ sharing, dual 16C650 DB9 male.                                 | 48.45   | 43.65             |
| 171547 | —    | 99468 ⊕     | PCI | 4 | DB25 | 32-byte FIFO, standard RS-232 interface, 921kb/sec transfer rate, supports IRQ sharing 16C550.                     | 129.95  | 116.95            |
| 171660 | —    | 99469 ⊕     | PCI | 8 | DB25 | 32-byte FIFO, standard RS-232 interface, 921kb/sec transfer rate, supports IRQ sharing 16C650.                     | 179.95  | <del>134.95</del> |
| 344903 | SYBA | SD-PCI-1S ⊕ | PCI | 2 | DB9  | 32-bit PCI bus, dual DB-9 male, Nm9835CV chipset.  | 27.49   | 26.15             |

## Parallel Interface Card

|        |   |         |     |   |      |   |         |         |
|--------|---|---------|-----|---|------|---|---------|---------|
| 171927 | — | 4008A ⚡ | PCI | 1 | DB25 | 32-byte FIFO, 2MB/sec transfer rate, supports ECP and EPP, supports IRQ sharing, DB25 female. | \$39.95 | \$35.95 |
|--------|---|---------|-----|---|------|---|---------|---------|

## Super I/O Controller Cards

|        |         |               |     |   |                      |  |         |         |
|--------|---------|---------------|-----|---|----------------------|--|---------|---------|
| 131318 | —       | KW-557A ⊕     | ISA | — | Mult.                | Supports 2 IDE and 2 floppy drives, single parallel port, dual RS-232 (16550 UART).  | \$29.95 | \$26.95 |
| 291901 | —       | MCT-IDEFH-2   | ISA | — | Mult.                | 16-bit interface, supports 2 IDE hard drives up to 528MB and 2 floppy drives from 360kb to 1.44Mb, jumper selectable for enabling and disabling ports. | 24.55   | 22.10   |
| 149294 | —       | CI-2020 ⚡     | ISA | — | 50-pin F             | DOS, Windows® NT/95, OS2 Netware, SCO UNIX, internal and external SCSI connectors.   | 32.25   | 28.99   |
| 191513 | Adaptec | AHA-2940U2B ⚡ | PCI | — | 68-pin F Ultra SCSI2 | AIC-7890AB chipset, Windows® 95/NT, Netware, OS/2 compatible, internal/external ULTRA II SCSI 68-pin connectors.                                       | 87.95   | 79.14   |

⊕ Blue Part No. = Limited Quantity Available

## Video Graphics Cards

|        |     |               |     |   |        |   |         |         |
|--------|-----|---------------|-----|---|--------|---|---------|---------|
| 248840 | —   | PS32985DR-8MB | PCI | — | HDDB15 | Savage IX 8MB graphics accelerator, built-in direct draw accelerator and NTSC/PAL video encoder 4-bit resolution.     | \$23.85 | \$21.44 |
| 364111 | ATI | 109-54100-00  | PCI | — | HDDB15 | 8MB graphics accelerator, Rage LT PRO AGP chipset, 7-pin TV-out and DFB connectors, Windows® 98 and NT4.0 compatible. | 29.99   | 28.49   |

## Serial Port Complete

**Lakeview Research** Provides you with everything you need to design, program, install and troubleshoot the links you set up. (306 pages, 1998)



| Part No. | Description          | Size         | Wt. (lbs) | Price   |
|----------|----------------------|--------------|-----------|---------|
| 154771   | Serial Port Complete | 7.0" x 10.0" | 1.4       | \$39.95 |

## Lowest Price Guarantee

Have you found a product at a lower print-advertised price? We'll beat that price by 10%, right down to our cost!



⚡ RoHS compliant product ⊕ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)





Fig. 1

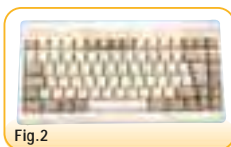


Fig. 2

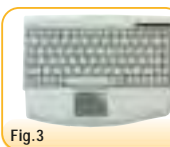


Fig. 3



Fig. 4



Fig. 5

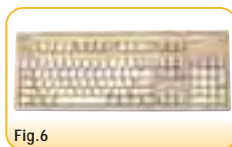


Fig. 6



Fig. 7



Fig. 8




Fig. 9



Fig. 10

### JAMECO ValuePro USB Keyboard Adapter

- USB-A female to 6-pin mini DIN male (PS/2)

Part No. \_\_\_\_\_ 1 10  
316832  \$1.79 \$1.59



Quantity SAVE **SALE**

| Part No. | Mfr.        | Product No.   | Interface | Description   | Fig. | Size (L"xW"xH")   | Wt. (lbs.) | 1       | 10      | 25      |
|----------|-------------|---------------|-----------|---|------|-------------------|------------|---------|---------|---------|
| 311183   | OKI         | HMB-631PUS    | PS/2      | 84-key soft touch mini keyboard w/ track point mouse  | 1    | 12.6 x 6.2 x 1.0  | 5.0        | \$41.85 | \$39.75 | \$37.75 |
| 114868   | —           | MCK-84SX      | 5-pin DIN | 84-key tactile keyboard, Windows® 95 compatible   | 2    | 12.8 x 6.6 x 1.0  | 2.4        | 44.95   | 40.45   | 35.05   |
| 211756   | —           | WK-540        | 5-pin DIN | 88/89-key soft touch keyboard w/ touchpad, Windows® compatible  | 3    | 11.4 x 8.5 x 1.2  | 2.3        | 59.95   | 53.95   | 48.95   |
| 639550   | IONE        | Scorpius-2KB  | PS/2      | 103-key soft touch keyboard, Windows® 98SE/2000/ME/XP compatible (black)  | 4    | 15.9 x 6.5 x 1.3  | 2.1        | 39.95   | 35.95   | 32.49   |
| 319661   | IONE        | Gemini-M1     | PS/2      | 104-key soft touch wireless keyboard w/ 12 multimedia and function keys and 2-button optical scroll mouse. 5AA batteries included | 5    | 17.6 x 7.5 x 1.6  | 2.2        | 22.95   | 20.65   | 16.55   |
| 173649   | —           | SUN 3201256-1 | PS/2      | 104-key tactile keyboard w/ 12 function keys, separate arrow & numeric keys   | 6    | 18.2 x 7.0 x 1.5  | 2.7        | 12.95   | 11.01   | 8.26    |
| 308101   | Labtech     | 967360-0403   | PS/2      | 104-key RF keyboard and 3-button optical scroll mouse, multimedia hot-keys  | 7    | 18.0 x 8.7 x 1.6  | 4.5        | 32.95   | 29.95   | 26.95   |
| 455603   | —           | KM-2501       | PS/2      | 104-key soft touch w/ multimedia & 12 function keys   | —    | 17.5 x 6.0 x 1.2  | 1.8        | 16.25   | 13.00   | 9.75    |
| 263521   | —           | RT3604        | USB       | 104-key soft touch USB keyboard w/ 12 function keys, separate cursor and numeric keypad. Extra ports on side and rear             | 8    | 18.6 x 7.8 x 3.8  | 3.8        | 14.65   | 13.90   | 13.15   |
| 319812   | PC Concepts | iCIA          | PS/2      | 107-key soft-touch keyboard w/ programmable function keys for internet/utility/office, and multimedia. Software included          | —    | 17.5 x 5.7 x 0.8  | 1.8        | 12.35   | 11.15   | 10.60   |
| 354950   | COMPAQ      | KB-9965       | PS/2      | 107-key soft-touch keyboard w/ 12 function keys   | —    | 18.5 x 6.5 x 1.4  | 1.3        | 12.95   | 11.65   | 8.74    |
| 681230   | NMB         | RT915CTW      | PS/2      | 104-key tactile keyboard w/ 12 function keys w/built-in speakers  | —    | 18.5 x 10.0 x 3.2 | 2.5        | 19.95   | 17.95   | 15.95   |
| 265375   | ITRON       | Scorpius-22RB | Serial    | 22-key serial tactile keypad w/ 2-key rollover and auto repeat function. Includes manual and drivers.                             | 9    | 6.2 x 4.2 x 1.3   | 0.8        | 39.95   | 35.95   | 32.49   |
| 319054   | —           | KB22APB       | PS/2      | 22-key PS/2 tactile keypad. Includes PS/2 to AT adapter.  | 9    | 6.3 x 4.3 x 1.5   | 0.8        | 33.69   | 31.99   | 30.39   |
| 1537109  | Panova      | 25551         | USB       | 18-key USB tactile keypad.  | 10   | 4.3 x 3.0 x 0.5   | 0.2        | 29.95   | 27.95   | 24.95   |

Blue Part No. = Limited Quantity Available



Fig. 1



Fig. 2



Fig. 3

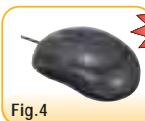


Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8

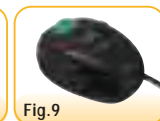


Fig. 9

| Part No. | Manufacturer | Product No.   | Type       | Interface  | Description  | Fig. | Size (L" x W" x H") | 1       | 10      | 25      |
|----------|--------------|---------------|------------|------------|--|------|---------------------|---------|---------|---------|
| 395612   | IONE         | LYNX-L7R      | Optical    | USB-PS/2   | Mini optical mouse w/ retractable cable and USB-PS/2 adapter | 1    | 3.9 x 2.3 x 1.5     | \$29.95 | \$26.95 | \$24.25 |
| 354976   | —            | C1-8B-2061-BB | Optical    | USB-PS/2   | 3-button with optical wheel with USB to PS/2 adapter         | 2    | 4.2 x 2.1 x 1.6     | 11.29   | 9.60    | 7.20    |
| 685943   | —            | OW7751        | Mech. Ball | USB        | 3-button with scroll; black                                  | —    | 4.8 x 2.5 x 1.5     | 14.95   | 13.49   | 11.95   |
| 687746   | Cherry       | M-5000        | Optical    | USB-PS/2   | 3-button with scroll with PS/2 to USB adapter; black         | —    | 4.6 x 2.6 x 1.5     | 18.95   | 16.95   | 15.25   |
| 486012   | Microsoft    | N64-0001      | Optical    | USB        | 2-button with scroll; silver                                 | 3    | —                   | 18.35   | 17.65   | 16.55   |
| 265471   | —            | —             | Optical    | USB        | Mini optical mouse   | 4    | 3.7 x 2.2 x 1.3     | 15.25   | 14.45   | 13.75   |
| 265447   | Memorex      | 32022378      | Optical    | PS/2       | Wireless, 5-button optical ScrollPro w/ PS/2 to USB adapter  | 5    | 4.9 x 3.0 x 1.6     | 26.95   | 25.60   | 24.55   |
| 288972   | Roltek       | K3P400A       | Mech. Ball | PS/2       | 3-button PS/2  | 6    | 4.2 x 2.5 x 1.3     | 4.95    | 4.49    | 4.05    |
| 305082   | IONE         | Libra-90      | Trackball  | PS/2       | PS/2 trackball with USB adapter                              | 7    | 5.6 x 4.7 x 1.9     | 29.95   | 26.95   | 24.25   |
| 283223   | —            | —             | Mech. ball | DB9 female | 3-button serial  | 8    | 4.3 x 2.6 x 1.6     | 6.15    | 5.23    | 3.92    |
| 121363   | —            | —             | —          | —          | Mini mouse pad   | —    | 7.0L x 5.5W         | 3.25    | 2.70    | 2.00    |
| 656907   | —            | FDM-G11       | Trackball  | PS/2       | 3-button off-table trackmouse; gray                          | 9    | 3.0 x 2.0 x 2.0     | 16.95   | 15.95   | 13.49   |
| 657011   | —            | FDM-G11-USB   | Trackball  | USB        | 3-button off-table trackmouse; black                         | 9    | 3.0 x 2.0 x 2.0     | 17.95   | 16.95   | 14.49   |

## Clip-on Mouse Pad

*Organize and maximize your workstation.*

Tired of trying to work without enough space? Free up your desk space with this convenient clip-on mouse platform. No drilling required—clamps on securely to your desk or workstation without damaging the desk. This unit also stores completely below your desk, so you don't have to see it when it's not in use.

Includes a cord clip to keep mouse cords tangle-free and in position. Blue P/N = Limited Quantity Available

| Part No. | Description       | Price  |
|----------|-------------------|--------|
| 249105   | Clip-on mouse pad | \$6.99 |



This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

## Pocket PC Reference Book

**Sequoia Publishing** Pocket PCRef 13th edition includes troubleshooting tools, wiring diagrams, connectors and pin outs, commands for Windows® XP and UNIX, CDROM drive configuration data, hard drive specifications, PC hardware, ASCII numbers, CPU processor specifications and more. (1088 pages, 2004)

- Size: 4.0" x 6.0" • Weight: 0.87 lbs.

Blue Part No. = Limited Quantity Available

| Part No. | Description         | Price   |
|----------|---------------------|---------|
| 355231   | Pocket PC Reference | \$15.15 |



See complete listing of books on page 257.

## 150 to 400-Watt PC Power Supplies

NEW

Quantity SAVE



### ATX Power Supplies

| Part Number | Mfr.                | Product Number          | Power (W) | Output (VDC/A)                                    | Input (VAC @ Hz)           | Input Connector (Mating Connector/Cord)   | Certification | Size (L" x W" x H") | Wt. (lbs) | Pricing  |          |          |
|-------------|---------------------|-------------------------|-----------|---|----------------------------|---|---------------|---------------------|-----------|----------|----------|----------|
|             |                     |                         |           |   |                            |   |               |                     |           | 1        | 10       | 25       |
| 422001      | Seasonic            | SS-600HT Active PFC     | 600       | +3.3/30, +5/30, +12/18, +12/18, -12/0.8, +5VSB/2  | 90-264@47-63 switching     | 3-prong AC receptacle                     | UL/CUL/TUV/CE | 5.9 x 5.5 x 3.4     | 5.0       | \$145.05 | \$133.40 | \$126.20 |
| 422094      | Seasonic            | SS-500HT Active PFC     | 500       | +3.3/30, +5/30, +12/17, +12/16, -12/0.8, +5VSB/2  | 90-264@47-63 switching     | 3-prong AC receptacle                     | UL/CUL/TUV/CE | 5.9 x 5.5 x 3.4     | 5.0       | 125.05   | 115.00   | 108.80   |
| 421999      | Seasonic            | SS-460HS Active PFC     | 460       | +3.3/30, +5/30, +12/16, +12/16, -12/0.8, +5VSB/2  | 90-264@47-63 switching     | 3-prong AC receptacle                     | UL/CUL/TUV/CE | 5.9 x 5.5 x 3.4     | 4.3       | 95.05    | 87.40    | 82.70    |
| 308814      | Powmax              | LP6100D*                | 400       | +3.3/28, +5/30, +12/25, -5/0.3, -12/0.8, +5VSB/2  | 115/230 @ 60 switchable    | 3-prong AC receptacle w/ 6' power cord    | UL/CUL/TUV/CE | 5.9 x 5.6 x 3.4     | 3.5       | 54.95    | 52.20    | 49.59    |
| 673379      | Seasonic            | SS-401HT Active PFC     | 400       | +3.3/30, +5/30, +12/14, +12/15, -12/0.8, +5VSB/2  | 90-264@47-63 switching     | 3-prong AC receptacle                     | UL/CUL/TUV/CE | 5.9 x 5.5 x 3.4     | 2.7       | 76.05    | 68.40    | 62.50    |
| 652607      | Seasonic            | SS-400HT-80 Active PFC  | 400       | +3.3/30, +5/30, +12/14, +12/15, -12/0.8, +5VSB/2  | 90-264@47-63 switching     | 3-prong AC receptacle                     | UL/CUL/TUV/CE | 5.9 x 5.5 x 3.4     | 2.5       | 99.05    | 91.10    | 86.10    |
| 673352      | Seasonic            | SS-350HS Active PFC     | 350       | +3.3/22, +5/21, +12/10, +12/15, -12/0.8, +5VSB/2  | 90-264@47-63 switching     | 3-prong AC receptacle                     | UL/CUL/TUV/CE | 5.9 x 5.5 x 3.4     | 2.7       | 57.05    | 51.30    | 47.19    |
| 673361      | Seasonic            | SS-301HT Active PFC     | 300       | +3.3/20, +5/20, +12/8, +12/14, -12/0.8, +5VSB/2   | 90-264@47-63 switching     | 3-prong AC receptacle                     | UL/CUL/TUV/CE | 5.9 x 5.5 x 3.4     | 2.7       | 46.05    | 41.40    | 38.35    |
| 652594      | Seasonic            | SS-300SFD-80 Active PFC | 300       | +3.3/20, +5/20, +12/8, +12/14.5, -12/0.8, +5VSB/2 | 90-264@47-63 switching     | 3-prong AC receptacle                     | UL/CUL/TUV/CE | 3.9 x 4.9 x 3.0     | 2.5       | 66.05    | 60.70    | 57.00    |
| 427928      | Seasonic            | SS-300SFD Active PFC    | 300       | +3.3/20, +5/20, +12/8, +12/14.5, -12/0.8, +5VSB/2 | 90-264@47-63 switching     | 3-prong AC receptacle                     | UL/CUL/TUV/CE | 5.1 x 4.9 x 2.5     | 2.7       | 51.05    | 46.90    | 44.40    |
| 673344      | Seasonic            | SS-300HS Active PFC     | 300       | +3.3/20, +5/20, +12/8, +12/14, -12/0.8, +5VSB/2   | 90-264@47-63 switching     | 3-prong AC receptacle                     | UL/CUL/TUV/CE | 5.9 x 5.5 x 3.4     | 2.7       | 42.05    | 37.80    | 35.49    |
| 1537310     | Sparkle Power       | FSP-300-60ATV*          | 300       | +3.3/28, +5/30, +12/15, +5VSB/2, -5/0.3, -12/0.8  | 115/230 @ 50-60 switchable | 3-prong AC receptacle (P/N 38050, pg 248) | UL/CSA/TUV    | 6.0 x 5.6 x 3.5     | 4.0       | 26.95    | 23.95    | 19.95    |
| 422123      | Seasonic            | SS-250SFD Active PFC    | 250       | +3.3/18, +5/21, +12/16, -12/0.8, +5VSB/2          | 90-264@47-63 switching     | 3-prong AC receptacle                     | UL/CUL/TUV/CE | 3.9 x 4.9 x 3.0     | 2.7       | 42.05    | 38.60    | 36.50    |
| 1536915     | Potrans             | PP-253XA                | 250       | +3.3/14, +5/25, +12/8, +5VSB/2 -5/0.5, -12/0.5    | 115/230 @ 50-60 switchable | 3-prong AC receptacle (P/N 38050, pg 248) | UL/CSA/TUV/CE | 6.0 x 5.6 x 3.4     | 3.5       | 39.95    | 35.95    | 32.35    |
| 319994      | 3Y Power Technology | AP-1250-1112            | 250       | +3.3/20; +5/25; +12/12 +5VSB/3; -5/5; -12/0.5     | 100-240 @ 50-60 switching  | 3-prong AC receptacle (P/N 38050, pg 248) | UL/CUL/TUV/CE | 7.5 x 4.0 x 1.6     | 2.9       | 33.25    | 31.65    | 23.75    |
| 421657      | Powertronic         | PKI800T3*               | 200       | +3.3/14, +5/22, +12/6, +5VSB/0.1, -5/5, -12/0.8   | 115/230 @ 50-60 switchable | 3-prong AC receptacle (P/N 38050, pg 248) | UL/CSA/TUV    | 6.0 x 5.6 x 3.3     | 3.3       | 15.95    | 12.76    | 9.57     |
| 196189      | Emacs               | MPW-6150F*              | 150       | +3.3/6, +5/10, +12/6, +5VSB/0.72, -5/0.2, -12/1   | 115/230 @ 50-60 switchable | 3-prong AC receptacle (P/N 38050, pg 248) | UL/CUL/TUV/CE | 7.5 x 4.0 x 1.6     | 2.5       | 34.95    | 29.71    | 22.28    |

### AT Power Supplies

|         |               |                |     |                                |                            |  |               |                 |     |         |         |         |
|---------|---------------|----------------|-----|--------------------------------|----------------------------|--|---------------|-----------------|-----|---------|---------|---------|
| 692414  | Autec         | PCB-5300-2000  | 326 | +5/30, +12/14, -12/0.5, -5/0.5 | 115/230 @ 50-60 switchable | 3-prong AC receptacle (P/N 38050)        | UL/CSA/TUV    | 6.0 x 5.6 x 3.4 | 3.0 | \$29.95 | \$26.95 | \$23.95 |
| 692393  | Autec         | PCB-5300-4043† | 326 | +5/30, +12/14, -12/0.5, -5/0.5 | 115/230 @ 50-60 switchable | 3-prong AC receptacle (P/N 38050)        | UL/CSA/TUV    | 6.0 x 5.6 x 3.5 | 3.6 | 29.95   | 26.95   | 23.95   |
| 1537424 | Sparkle Power | SPI-250G*      | 250 | +5/26, +12/9, -5/0.5, -12/0.5  | 115/230 @ 50-60 switchable | 3-prong AC receptacle (P/N 38050)        | UL/CSA/TUV/CE | 6.0 x 5.6 x 3.4 | 3.1 | 34.95   | 29.95   | 24.95   |
| 172823  | Mean Well     | AA-230*⊕       | 200 | +5/20, +12/8, -5/0.5, -12/0.5  | 115/230 @ 50-60 switchable | 3-prong AC receptacle with 6' power cord | CSA/TUV/CE    | 6.0 x 4.6 x 3.4 | 2.6 | 49.95   | 44.96   | 40.46   |

\* See photo above † With switch ♣ Pull = Extra Savings

## 150-Watt DC-to-AC Inverter

- Input voltage: 10-15VDC
- Output voltage: 110VAC @ 60Hz
- Peak power surge capable
- Overload & thermal protection
- Battery low shutdown
- Dimensions: 4.8"L x 2.9"W x 1.8"H
- Weight: 1.3 lbs.



| Part No. | Description      | 1       | 10      | 25      |
|----------|------------------|---------|---------|---------|
| 277181   | 150W auto plug ⊕ | \$28.95 | \$27.49 | \$26.15 |

## 75 and 150 Watt DC-to-AC Inverters

- Optimum efficiency: 90%
- AC output frequency: 60Hz
- DC input voltage range: 10 - 15VDC
- Auto reset short-circuit protection
- Overload protection/low battery alarm/ low battery shutdown
- P/N 307811 has a built-in thermal cooling fan

⊕ Blue Part No. = Limited Quantity Available



| Part No | Description   | Peak Surge | AC Output  | Dimension             | Price   |
|---------|---------------|------------|------------|-----------------------|---------|
| 307791  | 75W inverter⊕ | 200W       | 115VAC     | 4.8"L x 1.6"W x 2.4"H | \$26.95 |
| 307811  | 150W inverter | 450W       | 110V ±5VAC | 5.0"L x 1.9"W x 2.9"H | 34.95   |



isobar®

## Surge Protectors



- Up to \$50,000 Ultimate Lifetime Insurance covers Isobar and connected equipment against surge damage for life!
- Diagnostic indicators on Ultra versions alert you to improper outlet wiring, loss of AC power, and damage to protection circuitry
- 4 & 6-outlet protectors: 6' cord; 8 and 12-outlet protectors: 12' cord
- UL 1449 and 1283 listed
- Lifetime warranty



### Isobar Premium 19" Rack Mount Surge Protector

| Part No. | Product No. | Joules | Description                   | Wt. (lbs.) | 1        | 10       |
|----------|-------------|--------|-------------------------------|------------|----------|----------|
| 139686   | IBAR12RM    | 1280   | 12 outlet, 2 isolated filters | 4.7        | \$119.95 | \$107.99 |

### Isobar Premium Surge Protectors

|       |            |      |                              |     |         |         |
|-------|------------|------|------------------------------|-----|---------|---------|
| 18981 | ISOBAR 4   | 2200 | 4 outlet, 2 isolated filters | 2.4 | \$49.95 | \$44.95 |
| 74544 | ISOBAR 6 ⊕ | 2350 | 6 outlet, 3 isolated filters | 2.7 | 54.95   | 53.25   |

### Isobar Ultra Premium Surge Protector

|       |           |      |                              |     |         |         |
|-------|-----------|------|------------------------------|-----|---------|---------|
| 19001 | ISOBAR 8U | 2350 | 8 outlet, 4 isolated filters | 3.5 | \$69.95 | \$63.74 |
|-------|-----------|------|------------------------------|-----|---------|---------|

Ⓡ RoHS compliant product ⊕ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



## Standard Surge Protectors

Economical and effective spike and noise suppression with diagnostic LEDs.

- 168954:** • \$20,000 Ultimate Lifetime Insurance  
• Up to 27,000 amp spikes • Weight: 1.2 lbs.  
**124337:** • \$75,000 Ultimate Lifetime Insurance  
• Up to 42,000 amp spikes • Weight: 1.6 lbs.

| Part No. | Product No. | Joules | 1      | 10     |
|----------|-------------|--------|--------|--------|
| 168954   | Striker 7   | 750    | \$8.85 | \$8.41 |
| 124337   | Super 7     | 2350   | 17.95  | 16.35  |



## 6-Outlet Surge Protectors

- 20175:**  
• Metal power strip  
• 3-prong, 4' power cord  
• Max. spike current: 4500A, 50 joules  
• Size: 12.3"L x 2.4"W x 1.3"H • Wt.: 1.5 lbs.

- 216485:**  
• Heavy-duty power cord (14AWG x 3)  
• Max. spike current: 4500A • Clamping voltage: 400V  
• Max. surge dissip.: 900 joules • Max. surge volt.: 6500V  
• RESET/OFF switch with built-in 15A circuit breaker • Wt.: 0.9 lbs

| Part No. | Product No. | 1      | 10     | 100    |
|----------|-------------|--------|--------|--------|
| 20175    | 51W1-13206  | \$9.85 | \$8.85 | \$7.85 |
| 216485   | 51W1-10206  | 6.95   | 6.25   | 5.59   |



## Power Angel Monitor

- Help to forecast and manage your electric bill
- Monitor AC power quality to protect sensitive instruments
- Choose the correct Uninterruptible Power Supply (UPS) based on the real VA of your equipment
- Use it anywhere with any 120VAC appliance
- Max. voltage: 125V, 50/60 Hz

| Part No. | Description | 1       | 10      | 25      |
|----------|-------------|---------|---------|---------|
| 422158   | Power Angel | \$35.05 | \$32.20 | \$30.50 |



## Power-Strip-Saver Single Outlet and "Y" Double Outlet

Get full use of your power strips and UPS outlets with our high quality power strip outlet saver.

You can use all the outlets on your surge suppressors, UPS, and outlet strips.

Just plug a bulky power adapter into this cable and free up your other outlets.

- Length: 1 ft. • Cord type: SVT

Before  
4 Outlets BlockedAfter  
Every Outlet is Usable

"Y" Strip Saver

| Part No. | Description           | 1      | 10     | 50     |
|----------|-----------------------|--------|--------|--------|
| 199778   | AC power cord (black) | \$1.69 | \$1.55 | \$1.39 |
| 208338   | AC power cord (beige) | 1.69   | 1.45   | 1.09   |
| 208347   | "Y" power-strip-saver | 4.49   | 4.25   | 4.09   |

More Computer Switchboxes at  
[www.Jameco.com/Prod/ComputerSwitchboxes](http://www.Jameco.com/Prod/ComputerSwitchboxes)

## Computer Switchboxes



Fig. 1



Fig. 2



Fig. 3



Fig. 4

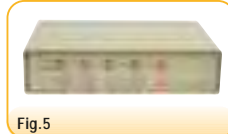


Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10



Fig. 11



Fig. 12

## KVM Switchboxes

SALE

Quantity SAVE

| Part No. | Mfr. | Fig. | Mfr. Part No. | Description  | Connectors   | Size (L" x W" x H") | Wt. (lbs.) | 1       | 10     |
|----------|------|------|---------------|--|--|---------------------|------------|---------|--------|
| 114155   | —    | 1    | 40H1-14402    | 2-way keyboard / mouse switchbox (2PCs to 1 user)      | HDB15 female / 5-pin DIN female  | 6.0 x 4.0 x 2.3     | 1.3        | \$10.79 | \$9.83 |
| 310826   | —    | 2    | KVM2717       | 2-way KVM switchbox (2PCs to 1 keyboard/mouse/monitor) | PS/2 female for keyboard & mouse; HDB15 female for monitor. Requires 9.5VDC@500mA power supply; recommend P/N 100175 pg 241                              | 4.7 x 4.0 x 1.8     | 1.5        | 49.19   | 40.57  |
| 310842   | —    | 3    | 2-PRT KVN-USB | 2-way KVM switchbox (2PCs to 1 keyboard/mouse/monitor) | User connectors: PS/2 female for keyboard & mouse; HDB15 female for monitor to PC connectors: two HDB15 male for monitor, two USB-A male; two 3.5mm jack | 2.9 x 2.7 x 1.1     | 1.5        | 82.29   | 78.15  |
| 310834   | —    | 4    | KS104         | 4-way KVM switchbox (4 PC's to one user)               | PS/2 female for keyboard & mouse; HDB15 female for monitor; recommend P/N 202180 pg 241 for power supply   | 7.4 x 2.9 x 1.3     | 7.1        | 112.49  | 84.36  |
| 149391   | ATEN | 5    | CS-114A       | 4-way KVM switchbox (4 PC's to one user)               | DB9 serial female / PS/2 keyboard & mouse; recommend P/N 204062 pg 258 for PS/2 cable. Includes manual and power supply                                  | 10.0 x 7.0 x 3.0    | 7.1        | 179.85  | 162.59 |
| 132249   | —    | 6    | 40H1-25602    | 2-user switchbox (1PC to 2 users)                      | Keyboard (5-pin DIN male); Monitor (DB15HD female); Mouse (DB-9 male). P/N 66174 (DB15HD M-M cable); P/N 132345 (DB9 F-F cable) pg 107                   | 7.5 x 5.3 x 2.8     | 1.6        | 17.95   | 15.90  |
| 79177    | —    | 7    | 40H1-07402    | 2-way keyboard / monitor switchbox (2 users to 1 PC)   | HDB15 female / 6-pin DIN female  | 6.0 x 4.5 x 2.6     | 1.3        | 19.95   | 17.95  |
| 134017   | —    | 8    | 40H1-25604    | 4-user switchbox (1PC to 4 users)                      | Keyboard (5-pin DIN male); Monitor (DB15HD female); Mouse (DB-9 male). P/N 66174 (DB15HD M-M cable); P/N 132345 (DB9 F-F cable) pg 107                   | 7.5 x 5.3 x 2.8     | 2.3        | 21.95   | 19.95  |

## Serial-to-PC Switchboxes

|        |   |    |            |                         |                             |                 |     |        |        |
|--------|---|----|------------|-------------------------|-----------------------------|-----------------|-----|--------|--------|
| 79126  | — | 9  | 40D1-10602 | 2-serial port switchbox | DB9 female (2-ports to 1PC) | 6.0 x 4.8 x 2.5 | 1.2 | \$9.95 | \$8.95 |
| 183417 | — | 10 | —          | 4-serial port switchbox | DB9 female (4-ports to 1PC) | 6.1 x 4.0 x 2.2 | 1.3 | 19.95  | 17.95  |

## Fax/Modem/Telephone-to-PC Switchbox

|       |   |    |            |                      |  |                 |     |        |        |
|-------|---|----|------------|----------------------|--|-----------------|-----|--------|--------|
| 79142 | — | 11 | 40R1-01602 | 2-PC RJ-11 switchbox | RJ-11 6P6C (fax/modem/telephone to 2PCs) | 6.0 x 4.8 x 2.5 | 1.2 | \$9.95 | \$8.95 |
|-------|---|----|------------|----------------------|--|-----------------|-----|--------|--------|

## Parallel Printer-to-PC Switchbox

|       |   |    |            |                  |                                 |                 |     |        |        |
|-------|---|----|------------|------------------|---------------------------------|-----------------|-----|--------|--------|
| 20095 | — | 12 | 40D3-17602 | 2-port switchbox | DB25 female (2PCs to 1 printer) | 6.0 x 5.8 x 2.3 | 1.4 | \$8.95 | \$7.95 |
|-------|---|----|------------|------------------|---------------------------------|-----------------|-----|--------|--------|

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)



## USB Fast Ethernet Adapter

- Plug and Play
- IEEE802.3 (10 BaseT) and IEEE802.3 (100 BaseT) specification compatible
- USB Rev 1.0 and 1.1 compatible
- Supports OHCI and UHCI
- Self-powered
- 1 upstream USB port and RJ-45 port
- Supports Windows® 98/ME/2000/XP



| Part No. | Description          | 1       | 5       | 10      |
|----------|----------------------|---------|---------|---------|
| 310797   | USB-Ethernet Adapter | \$21.69 | \$19.55 | \$17.55 |

## USB Modem Adapter

- This UC-232 USB serial modem adapter provides an external plug and play RS232 modem connection for PCs, notebooks, laptops, and handheld computing devices that support the USB specification.
- Data transfer rate: determined by modem
  - Power consumption: 90mA
  - Power mode: bus powered
  - Size: 3.2"L x 2.2"W x 0.9"H



**Includes:** DB-25 male connector and USB type A cable

| Part No. | Description       | 1       | 10      |
|----------|-------------------|---------|---------|
| 355696   | USB modem adapter | \$15.45 | \$13.95 |

## UTP Ethernet Cable Tester

- Connector type: RJ45 8P8C
- System used: 258A, 356A, AT&T/Ethernet 10BaseT
- Miswire, open, short tests

**Requires:** 9V battery (recommend P/N 151095, pg 250)

**Includes:** Zipper case



| Part No. | Size (L x W x H)   | 1       | 10      |
|----------|--------------------|---------|---------|
| 115895   | 4.5" x 2.5" x 1.3" | \$29.95 | \$26.95 |

## Modular Cable Tester

Easily read correct pin configuration of 10baseT, 10base2, RJ45/RJ11 modular cables, 258A, TIA568A / 568B, token ring, etc.



- Check for cable continuity, miswiring, open, short, grounding, and pin configurations
- One-year warranty
- Cable adapters: RJ45 M-M, 2 RJ45M-BNCM & BNC F-F
- On-board conn.: 2 RJ45F (tester) & 1 RJ45F (remote)
- Size: 4.0"L x 2.5"W x 1.0"H (Main console)
- Size: 4.0"L x 1.3"W x 1.0"H (Remote)

**Includes:** Manual and test cables

| Part No. | Description          | 1       | 10      |
|----------|----------------------|---------|---------|
| 145710   | Modular cable tester | \$84.95 | \$76.49 |

## Tone Generator & Amplifier Probe For Tracing Wires & Cables

- Tests wire trace, continuity, clear/busy/ringing line, tip/ring identification
- Insulated inductive probe tip prevents shorting conductors
- Selectable continuous or variable tone generation
- Output jacks for both headphones and handsets



**EXTECH**

**Includes:** Alligator test leads, modular phone connector cables, 9V battery, and carrying pouch

| Part No. | Description            | 1       | 10      |
|----------|------------------------|---------|---------|
| 198002   | Tone gen. & amp. probe | \$79.99 | \$71.99 |

## Network and CATV Cable Tester

Continuity tester for twisted pair cables and F-type coax cables.

- Tests for shorts, opens, miswires, and reversals
- Tests EIA/TIA568A and 568B, 10Base-T
- Shield detection test
- "F" connector for troubleshooting CATV and coaxial installations
- Size: 3.25"H x 2.0"W x 1.25"D
- Tests installed wiring and jumper cables, shielded or unshielded twisted pair cables (CAT5e/CAT5/CAT4/CAT3)
- Includes 2 AAA batteries
- Tests cable lengths from 3 ft. to 600 ft.



**EXTECH**

| Part No. | Product No. | Price   |
|----------|-------------|---------|
| 645634   | CT100       | \$28.49 |

## LANtest Network and Modular Cable Tester

- Tests 10Base-T, 10Base-2 thin ethernet cable, RJ45/RJ11 modular cables, 356A, TIA568A/568B and token ring cable, etc.
- Easy to verify cable continuity, open, short and miswire
- Can test the grounding
- Power switch provided for saving battery power



| Part No. | Product No.  | 1        | 10       | 50      |
|----------|--------------|----------|----------|---------|
| 615136   | 45-5767-0000 | \$115.79 | \$104.24 | \$93.82 |

## Short Haul Modem

- Up to 38,400 baud
- Will communicate over 6.3 miles of cable
- No external power required
- DCE/DTE selectable
- Xon-Xoff or hardware handshaking
- RS-232 interface (DB25 female)



| Part No. | Description      | 1       | 10      | 25      |
|----------|------------------|---------|---------|---------|
| 116581   | Short haul modem | \$29.95 | \$26.95 | \$23.95 |

## Bidirectional Non-Buffered Serial-to-Parallel Converter

- Bidirectional conversion of parallel and serial signals
- Serial interface: hardware handshake RTS/CTS, software handshake Xon/Xoff; DCE/DTE selectable; parity: odd, even, or no parity; data bits: 7, 8
- Connectors: one DB25 female and one Centronics 36-pin male
- Stop bits: 1 or 2
- Baud rate: 300 to 38,400bps
- Size: 4.0"L x 2.5"W x 1.0"H



**Includes:** AC adapter (9VAC @ 200mA) and manual

| Part No. | Description  | 1       | 10      | 25      |
|----------|--------------|---------|---------|---------|
| 116935   | Bi-converter | \$49.95 | \$44.95 | \$39.90 |

## Bidirectional Serial-to-Parallel Converter

**115.2kbps, 512kB Buffer**

- One DB25 female connector, one Centronics 36-pin male connector
- Fully compatible w/ Win® 95
- Baud rate: 300bps – 115,200bps
- FCC class A certified, CE certified
- LED indicator for parallel busy status
- DCE/DTE selectable
- Size: 3.8"L x 2.4"W x 1.0"H
- One-year warranty



**Includes:** 9VAC @ 200mA adapter

| Part No. | Description               | 1       | 10      |
|----------|---------------------------|---------|---------|
| 182983   | Serial/parallel converter | \$48.49 | \$44.95 |

## RS-232 to RS-485/422 Bidirectional Converters

- Cable length: 4000' max.
- Data rate: 1MB/second
- Controlled by RTS signal
- 4-wire full duplex or 2-wire half duplex
- DCE and DTE selectable
- Point-to-point and multidrop operations
- RS-232: DB25 female connector
- RS-485: terminal block and RJ11 connections
- Input: 110VAC; except P/N 129218 220VAC input
- Weight: 0.9 lbs.
- One-year warranty



Now a European Version!

197931: port powered (power adapter not included)

• Data rate: 100kbps

122956: features RS-485SI; optical isolation: 2000V

129218: features 220VAC input **Quantity SAVE**

**Includes:** 9VDC @ 300mA power adapter

| Part No. | Description              | 1       | 10      |
|----------|--------------------------|---------|---------|
| 117701   | RS-232-485/422           | \$57.95 | \$51.95 |
| 197931   | RS-232-485/422           | 69.95   | 52.45   |
| 122956   | RS-232-485/422 OPT ISO   | 119.99  | 89.99   |
| 129218   | RS-232-485/422 (220 VAC) | 42.95   | 32.21   |

Our goal is to provide you with more of what you want.  
Let us know how we can better serve your electronics needs.  
Please send your requests to **NewProducts@Jameco.com**.



## 8-Port Ethernet Hub

Although designed to the exacting standards of IBM for use in large corporate networks, its price and easy setup make it perfect for small office or home office use. Compatible with all standard STP, UTP, and FTP cables. Can be cascaded to support larger networks via the MDI (uplink) port.

• Size: 8.7"W x 5.3"D x 1.1"H • Weight: 1.7 lbs.



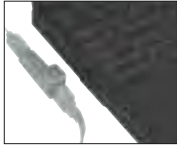
**Quantity SAVE**

| Part No. | Description | 1       | 10      |
|----------|-------------|---------|---------|
| 226149   | 8-port hub  | \$44.95 | \$33.71 |

## External 3-Port USB Thumbhub

Expand your single USB port to a stacked 3-port thumbhub.

- USB Revision 1.1 compliant
- LED indicators uplink/down port communication, and OCP status
- Supports full speed (12Mbps) and low speed (1.5Mbps) transfer rate
- Self-powered mode
- Compatible with Windows® 98/98SE/2000/ME/MAC OS8.5
- Size: 3.1"L x 0.8"W x 1.2"H



| Part No. | Description     | 1       | 10      |
|----------|-----------------|---------|---------|
| 208451   | 3-port thumbhub | \$14.95 | \$14.49 |

## USB 2.0 Docking Station

- Connects via USB-A port to your laptop
- Size: 4.8"W x 2.5"D x 1.0"H



**System Requirements:** PC with 75MHz min. Pentium® or equivalent; 16MB of RAM minimum, available USB-A port, Windows® 98 or later

| Part No. | Product No.  | Lower \$\$\$ | 1       | 5       |
|----------|--------------|--------------|---------|---------|
| 527822   | USB 2.0 dock |              | \$22.95 | \$15.95 |

## 19" Rack Mount CAT 5 Patch Panels

Our CAT 5 patch panels feature 110D punch locks that are compatible with KRONE or 110D tool. UL and CUL listed and certified, CAT 5 certified and can be used with T568 A/B installations. Blocks are color coded for T568 color-coding, and easy wire management.

**Quantity SAVE**

| Part No. | Description         | 1       | 10      |
|----------|---------------------|---------|---------|
| 208768   | 12-port patch panel | \$28.99 | \$27.55 |
| 208784   | 24-port patch panel | 42.75   | 32.06   |

## Cat5e/6 Network Cables

see page 108



## 19" Rack Mount Enclosures

- Ventilation holes on all sides
- Front and back panels are steel w/ aluminum, pre-punched face plates
- Front panel: 0.12" thick
- Black front panel
- Top, bottom and sides are durable 0.035" steel
- All enclosures have handles except P/N 132813



**Includes:** Mounting screws • Blue P/N = Limited Quantity

| Part No. | Dimensions (In.) |      |       | Wt. (lbs.) | Pricing |         |
|----------|------------------|------|-------|------------|---------|---------|
|          | H1               | H2   | D     |            | 1       | 10      |
| 132813   | 1.73             | 1.25 | 9.75  | 6.2        | \$39.95 | \$35.99 |
| 132822   | 3.46             | 3.00 | 9.75  | 7.9        | 47.95   | 43.49   |
| 132840   | 3.46             | 2.88 | 11.75 | 9.1        | 53.95   | 48.59   |
| 132847   | 5.22             | 4.75 | 11.75 | 10.6       | 63.95   | 55.99   |
| 132855   | 5.22             | 4.75 | 13.50 | 11.8       | 73.95   | 66.95   |
| 132864   | 8.56             | 8.00 | 13.50 | 15.4       | 94.95   | 84.95   |

## 19" Rack Mount Drawer with Keyboard and Trackball

- Occupies a single unit (1U) rack space
- PS/2 connector for keyboard and trackball
- Size: 19.0"W x 13.0"D x 1.75"H
- Weight: 18 lbs.



**Includes:** Wrist pads, module, PS/2 to 5-pin DIN and PS/2 to 9-pin adapters, and software

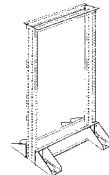
| Part No. | Description          | 1        | 10       |
|----------|----------------------|----------|----------|
| 220644   | Rack mount KB drawer | \$249.99 | \$234.99 |

## Relay Rack & Rack Panels

- Rack:
  - Black powder coat finish
  - 10-32 threaded holes
  - Used with 19" wide panels
  - 16 gauge CRS base
  - 1/8" aluminum side rails
  - Size (at base): 19.8"W x 15.3"D x 84.0"H
  - Dimensional weight: 70 lbs.
- 19" Wide Panel:
  - 10-gauge black steel
- Rack screw:
  - 10/32 screw; 5/8" phillips head (50 ea.)

133751

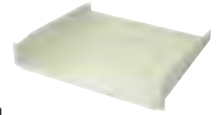
229489



| Part No. | Description         | Height      | 1        | 10       |
|----------|---------------------|-------------|----------|----------|
| 133751   | Relay rack          | 84" .....   | \$159.95 | \$147.00 |
| 229489   | Rack panel (2U)     | 3.50" ..... | 10.95    | 10.35    |
| 229500   | Rack panel (4U)     | 7.00" ..... | 14.55    | 13.95    |
| 229446   | Rack screw (50 ea.) | — .....     | 8.25     | 7.45     |

## Cabinet Mounting Plate for 19" Cabinet

- Use as industrial chassis mounting plate for servers, PCs or patch panels
- Made of industrial grade steel and aluminum
- Size: 19.0"W x 15.8"D x 3.5"H



| Part No. | Description         | 1       | 10      |
|----------|---------------------|---------|---------|
| 149500   | Cabinet mount plate | \$39.95 | \$35.95 |

## Digital I/O Board TTL Level PCI Bus

- Output: 2.5mA @ 0.45V sink, 2.5mA @ 2.4V source
- 24-bit digital I/O
- Three 8-bit ports



**Includes:** InstaCal: installation & test utilities software

| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 197827   | PCI-DIO24   | \$88.95 | \$85.95 |

## Server Chassis

**Intel® Server Chassis**  
Designed and validated for easy, cost-effective integration. A full line-up of pedestal and rack-optimized chassis are available to meet your customers' diverse needs.



**Additional Server Chassis available from SuperMicro, Evercase and Wintec**

**Also available Intel Slim Line Drives**

These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

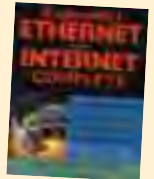
[See Our Complete Computer Case Offering at www.Jameco.com/Prod/ServerChassis](http://www.Jameco.com/Prod/ServerChassis)

## Complete Embedded Ethernet and Internet Book

**Lakeview Research**

Learn about networking with embedded systems. Topics include networking basics, hardware options in building a network, using internet protocol in local and Internet communications. (482 pages, 2003)

- Size: 7.0" x 9.0" • Weight: 1.7 lbs.



| Part No. | Description                | Price   |
|----------|----------------------------|---------|
| 236945   | Ethernet and Internet Book | \$44.95 |

## 30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 322.



## PowerSense™ Power-Over-Ethernet Mid Span Hubs

### PowerSense AX-6000 Series

- Current limited for short circuit protection with power isolation of 1500VRMS
- Supplies a full 15.4W for up to 8 devices as per IEEE 802.3af standards
- Two diagnostic LEDs
- Auto detects power requirements for safety and offers transparent 10/100Mb and management operation
- Support for all compliant IEEE 802.3af powered devices
- All chassis products feature a removable US power cord with IEC plug



#### 1 Slot Chassis with one standard 6500 module installed

| Part No. | Product No. | Description                       | 1        | 5        | 10       |
|----------|-------------|-----------------------------------|----------|----------|----------|
| 779093   | AX-6108     | 8 power & data ports (10/100Mbps) | \$451.25 | \$428.69 | \$407.25 |
| 779106   | AX-6108-RM  | Optional 19" rackmount kit        | 18.99    | 18.05    | 17.15    |

#### 8 Slot Chassis with up to three 6500 modules installed

|        |         |  |          |          |          |
|--------|---------|--|----------|----------|----------|
| 779114 | AX-6524 | 24 power & data ports (10/100Mbps)     | \$978.15 | \$958.99 | \$939.99 |
| 779122 | AX-6516 | 16 power & data ports w/ 1 cover plate | 786.59   | 770.79   | 754.99   |
| 779131 | AX-6508 | 8 power & data ports w/ 2 cover plates | 599.15   | 587.07   | 574.99   |



## PS5E HD Patch Panels

PS5E HD patch panels are robust and installer-friendly products by design, combining punch-down connectors and standard modular jacks. They are available in both BIX and 110 insulation displacement connection (IDC) options. A color-coded icon labeling system can be used to tag each patch panel port and simplify network management.



| Part No. | Product No. | Description                                 | 1       | 5       | 10      |
|----------|-------------|---|---------|---------|---------|
| 701241   | AX100464    | BIX patch panel, 1U, 24 port gray, T568A/B  | \$99.19 | \$94.23 | \$89.49 |
| 701253   | AX100465    | BIX patch panel, 1U, 24 port black, T568A/B | 99.19   | 94.23   | 89.49   |
| 701265   | AX100472    | BIX patch panel, 2U, 48 port gray, T568A/B  | 199.99  | 189.99  | 179.99  |
| 701277   | AX100473    | BIX patch panel, 2U, 38 port black, T568A/B | 199.99  | 189.99  | 179.99  |
| 701289   | AX100452    | 110 patch panel, 1U, 24 port black, T568B/A | 108.69  | 103.25  | 98.09   |
| 701294   | AX100454    | 110 patch panel, 2U, 48 port black, T568B/A | 217.35  | 206.64  | 190.65  |



## Optimax Tool Kit

Conveniently packaged in a carrying case, this optimax tool kit includes tools, installation instructions and a training video in CD form required to terminate 900µm buffered optical fiber and jacketed optical fiber, install LC/SC or ST compatible mode and single mode connectors.

Includes: Installation tools, fiber cleaver, crimping tool, instruction manual, microscope, tweezers, alcohol wipes, marker, scissors, waste bottle, fiber stripper, cable stripper and training video.

| Part No. | Product No. | 1        | 5        | 10       |
|----------|-------------|----------|----------|----------|
| 701302   | AX100497    | \$987.75 | \$939.47 | \$891.19 |



## Angled Management Bar Kit

This angled bar management kit is composed of an angled bar with 4 management devices each managing 6 cables. The short range installation bracket allows the management bar to be swiveled upward and maintain on the horizontal position and allows installation in tight spaces.

- Retrofittable to any patch panel or patch cord independent of manufacturer or performance
- Compatible to usual cable management solutions
- Swivelable and lockable
- Clear label identification

| Part No. | Product No. | 1       | 5       | 10      |
|----------|-------------|---------|---------|---------|
| 701310   | AX102641    | \$46.95 | \$44.59 | \$42.36 |

More Belden Power-Over-Ethernet Modules and Accessories available at [www.Jameco.com](http://www.Jameco.com).

⚡ This product is a special order, non-cancelable, non-returnable and may take 2-4 weeks to ship.

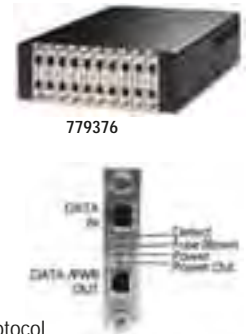
⚡ RoHS compliant product

⊕ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.

### PowerSense AX-8000 Series:

- Individual power modules, hot swappable in the 19" rackmount ready chassis, use 1 per powered device
- Current limited for short circuit protection with power isolation of 1kV between ports for safety
- User replaceable fuses for recovery from power surge or lightning damage, quickly repair any module
- 4 diagnostic LEDs
- Removable US power cord with IEC plug
- Mix & match for compatibility with IEEE802.3af or legacy Cisco CDP power devices, 12V or 24V protocol



#### Chassis complete with 10 standard power chassis modules

| Part No. | Product No. | Description                                    | 1        | 5        | 10       |
|----------|-------------|--|----------|----------|----------|
| 779350   | AX-8310     | 10 pwr. & data modules, 12V protocol           | \$669.75 | \$636.25 | \$604.45 |
| 779368   | AX-8410     | 10 pwr. & data modules, 24V protocol           | 669.75   | 636.25   | 604.45   |
| 779376   | AX-8510     | 10 pwr. & data modules, IEEE802.3af compatible | 669.75   | 636.25   | 604.45   |
| 779384   | AX-8610     | 10 pwr. & data modules, Cisco CDP protocol     | 748.55   | 734.27   | 719.99   |
| 700751   | AX-8300HW   | Double wide power & data module, 12V protocol  | 77.45    | 75.82    | 74.19    |

## Category 6 Network Cables

- With RJ45 plugs and molded strain reliefs
- Assembled using ETL verified 24AWG stranded cable
- Gold over nickel contacts
- Exceeds performance levels as specified in TIA/EIA 568B.2-1 Category 6 draft 8



### Category 6

| Part No. | Length | Color  | 1      | 10     | 50     |
|----------|--------|--------|--------|--------|--------|
| 219707   | 3 ft.  | Gray   | \$2.79 | \$2.69 | \$2.56 |
| 219731   | 25 ft. | Gray   | 9.39   | 8.92   | 8.47   |
| 219740   | 50 ft. | Gray   | 14.29  | 13.58  | 12.90  |
| 219854   | 3 ft.  | Blue   | 2.79   | 2.69   | 2.56   |
| 219889   | 25 ft. | Blue   | 9.39   | 8.92   | 8.47   |
| 219897   | 50 ft. | Blue   | 14.29  | 13.58  | 12.90  |
| 220003   | 3 ft.  | White  | 2.79   | 2.69   | 2.56   |
| 220011   | 7 ft.  | White  | 3.99   | 3.87   | 3.68   |
| 220046   | 50 ft. | White  | 14.29  | 13.58  | 12.90  |
| 219900   | 3 ft.  | Red    | 2.79   | 2.69   | 2.56   |
| 219934   | 25 ft. | Red    | 9.39   | 8.92   | 8.47   |
| 219942   | 50 ft. | Red    | 14.29  | 13.58  | 12.90  |
| 219803   | 3 ft.  | Green  | 2.79   | 2.69   | 2.56   |
| 219838   | 25 ft. | Green  | 9.39   | 8.92   | 8.47   |
| 219846   | 50 ft. | Green  | 14.29  | 13.58  | 12.90  |
| 219758   | 3 ft.  | Black  | 2.79   | 2.69   | 2.56   |
| 219782   | 25 ft. | Black  | 9.39   | 8.92   | 8.47   |
| 219791   | 50 ft. | Black  | 14.29  | 13.58  | 12.90  |
| 219969   | 7 ft.  | Yellow | 3.99   | 3.87   | 3.68   |
| 219993   | 50 ft. | Yellow | 14.29  | 13.58  | 12.90  |

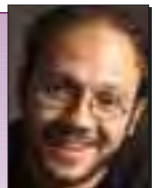
More CAT6 cables available on page 108

## What is Power Over Ethernet?

Power over Ethernet or PoE technology adds electrical power transmission to remote devices over standard twisted-pair cable in an Ethernet network. This allows powering IP telephones, wireless LAN access points, webcams, Ethernet hubs, computers, and other appliances where it would be inconvenient or unfeasible to supply power separately.

The technology is somewhat similar to POTS telephones, which also receive power and analog data via the same cable. The most important benefit of PoE is that it works with an unmodified Ethernet cabling infrastructure.

**Practical Practices**  
Money Saving Tips for the Engineer





## DigiVue™ Complete Digital Security Video Recording System

Kit includes a PCI video capture card, 2 outdoor color day/night cameras, 2 micro dome color cameras, video recording software with drivers, four 50' video/power cables and 4 power supplies for the camera.



### EDV-XV425 Video Capture Card:

- 60fps per card
- Monitors multiple IP addresses
- Supports multiple card installations
- 4-channel video and 1-channel audio
- Supports real time WAN/LAN and internet monitoring

### EC-624 Outdoor Color Day/Night Camera:

- 1/4" CCD imaging chip • 30 feet IR range
- 0.1 lux sensitivity • Built-in electronic iris control
- 420 TV line resolution • 6mm lens with F2.0

### ECMD-01 Micro Dome Color Camera:

- CMOS imaging chip • Clear dome
- 380 TV line resolution

| Part No. | Product No.   | 1        | 10       |
|----------|---------------|----------|----------|
| 639584   | EDV-XV425 kit | \$449.99 | \$405.00 |

## ViSEC Home Office Security System

Turns your PC into a powerful, global-wide surveillance system in 5 minutes or less.



- Watch live or recorded video from anywhere in the world via the Internet
- Record months of video at a time
- Record when motion is detected, incrementally or continuously
- Be alerted when intruder enters with a picture to your cell phone, PDA or email address
- Supports multiple cameras including: webcams, spycams, wireless and IP based network cameras

**Minimum system requirements:** Windows® 95/98/ME/NT/2000/XP

| Part No. | Description   | 1        | 10       |
|----------|---|----------|----------|
| 404531   | Security system  | \$150.99 | \$139.00 |

## DigiVue™ Digital Surveillance System

This high-speed PCI video capture card comes with 4 video inputs, 1 audio input that provide & super digital images from multiple cameras and remote surveillance. Add up to 4 cards per system controlling up to 16 cameras.



- Input signal: 4 video, 1 audio channel
- Watermark time and date stamp
- Display and record: 60 frames/sec.
- Enhanced MPEG4 format
- Adjustments: light, contrast, hue, saturation
- Record mode: event/continuous/schedule
- Resolution: 160 x 120 to 640 x 480
- Storage: HDD/VDROM/CD-RW/DAT/MO/ZIP/RAID
- Supports real time WAN/LAN and internet monitoring via client software, internet explorer

**Includes:** CD-ROM and drivers

**Minimum system requirements:** Pentium 4, 1.8GHz, 256MB RAM, 32MB AGP video card

| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 639568   | EDV-XV425   | \$94.95 | \$85.46 |

## 14" Color CCTV Monitor

- NTSC/PAL switchable
- Operating frequency: EIA - 15750Hz/60Hz; CCIR: 15625Hz/60Hz
- Input voltage: 100 - 240VAC @ 50/60Hz
- Input signal: CVBS - 1Vp-p (typical); Y/C separation - 1Vp-p
- Input impedance: hi/lo impedance (switchable)
- Video in/out channel (BNC): 2 BNC connectors (CVBS in/out); 2 4-pin mini DIN (YC in/YC out)
- Audio in/out channel: 2 inputs/2 outputs
- Front panel control: power on/off; contrast, brightness, color, tint, sharpness, volume (AV/YC) switches
- CRT dot pitch: 0.63mm • CRT: 14" diagonal
- Power consumption: 70W • Res.: >420 lines
- Size: 13.8"W x 14.4"D x 12.6"H • Weight: 31.9 lbs.



| Part No. | Mfr. Part No. | 1        | 10       |
|----------|---------------|----------|----------|
| 320119   | 15-MC14A      | \$277.39 | \$249.65 |

## ELYSIA CORPORATION Self-Contained Security System

The ABS-1000+ security system is comprised of a control panel, motion sensing device, and 115dB siren all built-in inside an easy to mount steel cabinet. Mounted to a ceiling, infrared motion sensor can sense up to 12 feet high and 30' wide.

Two remote controls are provided for easy arming and disarming of the system. The power supply can either be plugged into an outlet or mounted inside the control compartment. A 12VDC auxiliary power is provided as well. Input terminals are provided to wire optional window and door switches, remote sensing devices and more. An output is also provided with an onboard relay providing you with a 5A N.O./N.C. contact which is activated when the unit is triggered.

- Heavy gauge steel cabinet • 115dB siren
- Passive infrared motion detection
- Size: 9.0"W x 9.0"D x 7.25"H
- Weight: 11 lbs. (without battery)



| Part No. | Product No. | 1        | 10       |
|----------|-------------|----------|----------|
| 681213   | ABS-1000+   | \$169.95 | \$161.45 |

## USB Color Camera with Built-In Illuminator

Just connect this camera into your computer's USB port, install the included software and you are ready to be seen on the web.

- 1/3" CMOS digital sensor
- 6mm lens • 350k pixels
- Still image: 640 x 480 • View angle: 62°
- Min. lux: 0 (w/ IR illuminator) • USB powered
- Slide bar hue, contrast and brightness control
- Auto or manual exposure, gain and white balance adjustments • 380 line resolution
- Frame rate: 15fps @ 640 x 480 res.; 3fps @ 160 x 120 to 352 x 288 res.

**Includes:** CD ROM software and drivers



| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 639576   | EC-PC-CAM   | \$47.45 | \$42.71 |

## Black and White CCD Camera with 6" Monitor

### Camera: EIA Format

- 512(H) x 492(V)
- 1/3" CCD image sensor
- 420 TV lines
- 6 IR LED light for view in the dark applications
- Min. illumination: 0 lux with LED; 0.1 lux without LED
- Signal & noise ratio: >48dB • Built-in audio function



### Monitor: EIA Format

- 6" Monitor with auto switching audio/video input; auto switching time selectable (2 to 20 seconds auto cycling)
- 2-channel audio/video input, 1-channel audio/video synchronous output
- Contrast, brightness and V frequency adjustment at the back of the monitor
- Auto switching time selection, volume adjustment button on front panel
- Time (seconds) scale display in front panel
- Size: 6.6"W x 5.5"H x 7.5"D

**Includes:** camera with bracket, cable 13.5VDC @ 1.2A power supply

| Part No. | Description         | 1        | 10       |
|----------|---------------------|----------|----------|
| 639613   | Camera with monitor | \$122.55 | \$110.30 |

## SONY® Color CCD Camera


### Sony Chipset

- 1/4" Sony super HAD CCD sensor
- NTSC system with 510(H) x 492(V)
- Furnished mini lens: 3.6mm
- Minimum illumination: 0.5 lux @ F2.0
- Signal to noise ratio: >48dB • 330 TV lines
- Supports these functions: auto electronic shutter (AES), auto iris control (AIC), auto gain control (AGC), auto white balance (AWB), back light compensation (BLC) and flicker less (FL)
- Video drive iris control; high/low switchable auto gain control; on/off backlight compensation
- Internal, negative synchronous system
- Video output: 1Vp-p; 75Ω



**Requires:** 12VDC @ 120mA power supply (recommend P/N 163993, pg 241)

**Includes:** Power/signal cable & mounting hardware

| Part No. | Description   | 1        | 10       |
|----------|---|----------|----------|
| 213436   | Enclosed color camera  | \$179.95 | \$161.95 |

## Night Vision Infrared Lighted Camera

### EIA Format

- Adjustable camera lens
- Auto iris controlled
- Built-in voltage regulator
- Horizontal synch. frequency: 15.734kHz
- 6 Infrared LEDs for night vision
- Scanning system: 2:1 interlace
- Video output: 1Vp-p; 75Ω • Lens: 3.6mm
- Audio output: 2Vp-p max. • 380 TV line resolution
- FOV: 92° • 0.1 lux with F2.0
- Matching conn.: RG59 BNC (P/N 71271, pg 155)
- Size: 2.9"L x 2.0"W x 2.0"H • Weight: 1.2 lbs.



**Includes:** 12VDC @ 500mA power supply and wall mounting bracket

| Part No. | Description             | 1        | 10       |
|----------|-------------------------|----------|----------|
| 150404   | Infrared lighted camera | \$119.95 | \$109.00 |

## Black and White Camera with 8mm Lens

- 1/3" CCD image sensor
- Horizontal res: 420TV lines
- Min. illumination: 0.1 lux
- Horizontal freq.: 15.734kHz
- 510(H) x 492(V) EIA signal format
- Vertical freq.: 60Hz
- Clock freq.: 19.0699MHz
- S/N ratio: 48dB
- Scanning system: 2:1 interlace
- Electronic shutter: 1/100,000 sec.
- Auto iris lens: DC drive/AES/video drive
- Video output: 1Vp-p, 75Ω
- Audio output: 2Vp-p max., 50Ω
- Backlight compensation and auto-gain control selectable
- Power requirements: 12VDC @ 100mA; 24VAC
- Size: 4.5"L x 2.0"W x 2.0"H
- Weight: 0.8 lbs.



| Part No. | Description                   | 1       | 10      |
|----------|-------------------------------|---------|---------|
| 245041   | Black & white CCD camera .... | \$99.95 | \$89.95 |

## Color Camera with 8mm Lens

- 1/3" CCD image sensor
- Horizontal res: 420 lines
- Min. illumination: 0.5 lux
- 510(H) x 492(V) EIA signal format
- Vertical freq.: 60Hz
- S/N ratio: 52dB
- Scanning system: 2:1 interlace
- Electronic shutter: 1/120,000 sec.
- Auto iris lens: DC drive/AES/video drive
- Video output: 1Vp-p, 75Ω
- Audio output: 2Vp-p max., 50Ω
- Backlight, auto-gain, and mirror reverse picture switch selectable
- Auto-tracing white balance
- 2X digital zoom
- Power requirements: 12VDC @ 150mA
- Size: 5.0"L x 2.0"W x 2.0"H
- Weight: 0.8 lbs.



| Part No. | Description        | 1        | 10      |
|----------|--------------------|----------|---------|
| 395461   | Color camera ..... | \$103.35 | \$93.89 |

## Waterproof Tube-Style IR Color Camera

### NTSC Format

- For indoor and outdoor use
- 1/4" CCD image sensor
- 512(H) x 492(V)
- 420 horizontal line resolution
- 59.94Hz vertical frequency
- Scanning system: 2:1 interlace
- 0 lux w/ 20 IR LEDs
- Internal synchronization
- S/N ratio: >48dB
- Up to 1/100,00 sec. electronic shutter
- Auto white balance and gain control
- 880 ~ 940nm infrared wavelength
- Video output: 1Vp-p, 75Ω
- 4.3mm lens with F1.8
- Size: 2.1"Dia x 3.8"L



**Requires:** 12VDC @ 160mA power supply (recommend P/N 162996, pg 240)

**Includes:** Mounting hardware

| Part No. | Mfr. Part No.   | 1        | 10       |
|----------|-----------------|----------|----------|
| 319901   | 15-CM25WM ..... | \$189.05 | \$184.29 |

## SONY® Black & White Low-Light Camera

### Sony Chipset

- Signal to noise ratio: >48dB
- Requires 12V power source (not included)
- 6" wires with 4-pin Molex-type keyed connector
- EIA system 537(H) x 505(V)
- Temp. tolerance: -5°C to 40°C
- Lens: 3.6mm
- Composite output with 420 line resolution
- Shutter speed: 1/60 - 1/1000
- FOV: 92.6°
- Video output: 1.0Vpp composite video/75Ω
- Size: 1.3"L x 1.3"W x 1.0"H
- One-year warranty



☉ Blue Part No. = Limited Quantity Available

| Part No. | Description          | 1       | 10      | 25      |
|----------|----------------------|---------|---------|---------|
| 150931   | Camera board ☉ ..... | \$61.89 | \$58.80 | \$55.97 |
| 159071   | 8mm lens 38.6° ..... | 16.15   | 15.39   | 11.54   |

## Black & White Camera with Lens

### EIA Format

- 1/3" CCD image sensor
- 510(H) x 492(V)
- Horizontal res.: >350 lines
- Scanning system: 2:1 interlace
- Sensitivity: 0.7 lux/F2.0
- Power supply: 12VDC (recommend P/N 162996, pg 240)
- Video output: 1Vp-p, composite video 75Ω
- Size: 1.3"L x 1.3"W x 1.2"H
- S/N ratio: 46dB
- Power consumption: 110mA
- FOV: 92°
- Electronic shutter: 1/125,000 sec. (linear)



| Part No. | Description        | 1       | 10      |
|----------|--------------------|---------|---------|
| 171029   | Camera board ..... | \$44.95 | \$40.45 |

## Mini Wireless Color Camera

Place a color video camera with sound almost anywhere! This super-small (1" x 3/4" by 7/8") 1/4 ounce, 3 Lux wireless camera and receiver combo delivers sharp, full-motion video images at 380 lines of resolution. With its 150-foot (unobstructed) range, light weight, and 9-volt battery power, you can now add video capability to a world of hobby applications.



| Part No. | Description                 | 1       | 10      |
|----------|-----------------------------|---------|---------|
| 249025   | Wireless color camera ..... | \$89.95 | \$80.95 |

## Color Interline Camera

### Water Resistant with Adjustable Mounting Bracket

- EIA format
- 1/3" CMOS image sensor
- EIA format: 512(H) x 492(V)
- 330 horizontal line resolution
- 2:1 scanning interlace system
- 5 lux sensitivity
- Video output: 1V p-p; 75Ω
- 6mm lens/F2.0
- S/N ratio: 40dB
- FOV: 53°
- Electronic shutter: 1/60 - 1/1,200 sec.
- Connectors: 1 standard RCA female jack for video, and in-line 2.1mm power-plug connector for power supply
- Size: 2.6"L x 0.9"Dia.



**Includes:** Adjustable mounting bracket, instruction sheet and 9V @ 100mA power supply

| Part No. | Description        | 1       | 10      |
|----------|--------------------|---------|---------|
| 185017   | Color camera ..... | \$99.95 | \$89.95 |

## 2.4GHz Wireless Weatherproof Color Camera with PIR

### NTSC format

- For indoor and outdoor use
- 1/4" CCD image sensor
- 380 horizontal line resolution
- 3 lux with F2.0; 0.5 lux with F1.2
- Video output: 1Vp-p, 75Ω
- Audio output: 2Vp-p max
- Transmitter output power: 10mW
- Output impedance: 50Ω typical
- Pulse counter w/ automatic reset
- Size: 4.2"W x 5.0"D x 4.8"H



**Includes:** 12VDC @ 500mA power supply and mounting hardware

| Part No. | Mfr. Part No.    | 1        | 10       |
|----------|------------------|----------|----------|
| 319871   | 15-2400CTH ..... | \$195.25 | \$180.25 |

## Mini Dome Color Camera

### NTSC Format

- Perfect for ceilings
- 1/4" CCD image sensor
- 512(H) x 492(V)
- 330 horizontal line res.
- S/N ratio: 46dB
- 15.73kHz horizontal synch. frequency
- Scanning system: 2:1 interlace
- Up to 1/96,000 second electronic shutter
- 3.6mm lens with F2.0
- Video output: 1Vp-p, 75Ω
- Power supply: 12VDC @ 160mA (recommend P/N 162996, pg 240)
- 2 lux/F2.0
- FOV: 92°
- Size: 3.5"Dia. x 2.3"H



**Quantity SAVE**

**Includes:** Mounting hardware

| Part No. | Description            | 1        | 10       |
|----------|------------------------|----------|----------|
| 171037   | Mini-dome camera ..... | \$139.95 | \$104.96 |

Over 99% of Our Catalog Products Are In Stock

Place your order by 6PM EST for same business-day shipment.



## 4-Channel 2.4GHz Wireless Audio/Video Transmitter System

CCIR, NTSC, PAL, EIA Format

- ISM Band: 2.413 – 2.470GHz
- Four selectable transmitter and receiver channels
- Antenna mode: dipole (omnidirectional)
- Impedance: 50Ω typical
- Video input: 1Vp-p composite
- Audio input: 2Vp-p max. • Weight: 3.2 lbs.

**Includes:** Two 9VDC @ 300mA with 1.3mm x 3.5mm center positive plug, and two 2.5mm male to RCA patch cables

| Part No. | Description                 | 1        | 10       |
|----------|-----------------------------|----------|----------|
| 265308   | 4-ch. wireless system ..... | \$149.95 | \$134.95 |

## 2.4GHz Wireless Audio/Video Transmitter

- Frequency range: 2413MHz to 2470MHz
- Impedance: 50Ω
- Output power: 1 watt
- Video input: 1Vp-p
- Audio input: 2Vp-p
- Size: 2.4"L x 1.9"W x 1.4"H

**Includes:** 12VDC @ 1A wall adapter, RCA patch cable, antenna and mounting hardware

- 179864:**
- For use with 2.4GHz cameras, transmitters and receivers
  - Gain: 3dB; unidirectional

| Part No. | Description                     | 1        | 10       |
|----------|---------------------------------|----------|----------|
| 289852   | Wireless audio/video tran. .... | \$199.95 | \$149.96 |
| 179864   | 2.4GHz SMA RF antenna .....     | 13.65    | 10.24    |
| 179872   | Wireless extension cable .....  | 10.99    | 9.89     |

## 4-Channel 2.4GHz Wireless Audio/Video Receiver and 10mW Transmitter

Make your camera wireless up to 492 feet!

- Transmission range: 492' (150M outdoors); 164' (50M indoors)
- 4-channel switch selectable on transmitter
- Output power (transmitter): 10mW
- Output impedance: 50Ω typical
- Video input: 1Vp-p composite
- Audio input: 2Vp-p max.
- RCA jacks for audio and video connectors

**Receiver:**

- Non-volatile memory protects system set-up from power loss
- Video loss detection and freeze channel
- Mute and alarm trigger port • Weight: 1.8 lbs.
- Size: (transmitter) 4.5"L x 3.2"W x 1.0"H
- Size: (receiver) 6.5"L x 5.5"W x 1.4"H

**Includes:** RCA cable, 12VDC @ 500mA adapter, RCA to F connector adapter (receiver unit only)

| Part No. | Description                 | 1       | 10      |
|----------|-----------------------------|---------|---------|
| 192858   | 4-channel transmitter ..... | \$94.45 | \$85.05 |
| 192866   | 4-channel receiver .....    | 124.95  | 112.95  |

## Cable Assembly (75Ω RG59/U BNC – BNC)

| Part No. | Length      | 1      | 10     | 50     | 100    |
|----------|-------------|--------|--------|--------|--------|
| 262730   | 25' Ⓢ ..... | \$9.95 | \$8.96 | \$7.17 | \$5.38 |
| 262748   | 50' Ⓢ ..... | 17.05  | 16.25  | 15.45  | 14.69  |

For additional BNC Cables see pages 114 & 155.

## 4-Channel Digital Video Multiplex Recorder

Record and monitor your security surveillance system with this 4-channel digital video multiplex recorder.

- TCP/IP with client software web interface
- Conventional VCR back up, remote back-up using TCP/IP, or internal back-up • Plug and play
- RS-232C, RS-485, 4-alarm input, 1 relay output
- Pan, tilt, zoom, and focus camera control

**Video I/F**

- 4-channel input, 1Vp-p, 75Ω unbalanced BNC type connectors • 480 TV lines
- 16.7 million colors • S/N ratio: >48dB
- 4 output (BNC/SVHS/VGA type)

**Monitoring Method**

- Split screen (full/quad display), zoom, PIP, sequence
- Screen quality: full screen – 720(H) x 480(V) active pixels; ¼ screen – 360(H) x 240(V) active pixels

**Recording/Playback Function**

- 30 frames/sec. maximum • JPEG compressed picture
- Quad screen recording or field switcher method
- Real time/time lapse/event record mode
- Search/still track play

**Includes:** Remote control, 12VDC @ 4.16A power supply, manual and software in CD-ROM

| Part No. | Mfr. Part No.         | 1        | 10       |
|----------|-----------------------|----------|----------|
| 320127   | 15-DVR04SAE-LAN ..... | \$565.25 | \$537.55 |

## Audio/Video Adaptor

**CAT 5 UTP**

- Converts impedance of video/audio signals to 100Ω for transmission over CAT 5 UTP cable
- Support both NTSC or PAL video signals
- Built-in impedance matching device and filter for video and audio signal transmission
- Use with existing wiring and wall jacks for easy and cost effective installation
- Video trans. distance: 1000' color/ 2000' black/white

**210471:**

- Signal pair: video (BNC), CAT pair 1 (RJ45)

**220880:**

- Signal pairs: video (BNC), CAT pairs 4(RJ45); audio 1 (RCA); CAT pair 3 (RJ45); audio 2 (RCA), CAT pair 2 (RJ45)

**Includes:** Mounting hardware

Ⓢ Blue Part No. = Limited Quantity Available

| Part No. | Description             | 1       | 10      |
|----------|-------------------------|---------|---------|
| 210471   | BNC/RJ45 w/ cable ..... | \$28.45 | \$25.60 |
| 220880   | BNC/RJ45 ⓈⓈ .....       | 42.95   | 32.21   |

## Outdoor Metal Camera Enclosures

- Plate glass: 3mm thick

**170931: without heater**

- Clear window area:

2.5"W x 2.3"H

- Max. camera size:

4.0"L x 2.4"W x 2.4"H

Size: 16.0"L x 4.9"W x 4.9"H • Weight: 2.8 lbs.

**170940: w/ heater (keeps optics from fogging)**

- Clear window area: 3.5"W x 3.1"H

Size: 11.0"L x 3.6"W x 3.6"H • Weight: 6.8 lbs.

| Part No. | Description                      | 1       | 10      |
|----------|----------------------------------|---------|---------|
| 170931   | Camera housing Ⓢ .....           | \$28.45 | \$21.34 |
| 170940   | Camera housing w/ heater Ⓢ ..... | 62.95   | 50.95   |

## Dual Page Color Quad Processor

- Signal format: NTSC/PAL color
- Display rate: 60fps/50fps
- No. of video input channels: 4 with loop
- Video outputs selectable: 1Vp-p 75Ω (full screen or quad)
- Alarm input: 8
- Video inputs: 1Vp-p, 75Ω
- Memory 1024 x 512
- Switching interval: 1 to 99 seconds
- Date time generator
- Size: 16.9"W x 1.8"H x 8.5"D



**Lower \$\$\$**

| Part No. | Product No.     | 1        | 10       |
|----------|-----------------|----------|----------|
| 638240   | 15-QC43 Ⓢ ..... | \$196.05 | \$175.05 |

## SVGA Monitor Splitters

Duplicate a video signal from one source to monitors up to 210' away.

- Suitable for SVGA, VGA & multisync monitors

**176866: 2-channel**

- 1 HDBB15 male connector from PC to box; 2 HDBB15 female connectors from box to monitors

Size: 6.6"L x 3.3"W x 1.1"H

**133866: 4-channel**

- Slide switch for video signal gain control
- Daisy chainable
- Size: 8.8"L x 6.0"W x 1.9"H • Weight: 3.6 lbs.

**Includes:** Power adapter and manual

| Part No. | Description                    | 1       | 10      |
|----------|--------------------------------|---------|---------|
| 176866   | 2-ch. monitor splitter Ⓢ ..... | \$49.95 | \$37.46 |
| 133866   | 4-ch. monitor splitter Ⓢ ..... | 59.95   | 51.66   |

## Video RF Modulator w/ S-VHS Input

Designed to convert separate audio and video signals from various video components.

- RF outputs: 3 or 4 channel switch selectable
- RF output impedance: 75Ω
- Video input impedance: 75 or 1kΩ
- Audio input impedance: 13 ±3kΩ
- TV to antenna insertion loss 50 – 806MHz: -2dB
- Video carrier output level: 69dBuV

| Part No. | Mfr. Part No.   | Description              | Price   |
|----------|-----------------|--------------------------|---------|
| 319062   | 203-101 Ⓢ ..... | Video RF modulator ..... | \$14.95 |

## Mini Indoor Pan & Tilt Mechanism Continuous Pan

- Automatic scanning: 0° – 355° angular travel; pan clockwise and counter-clockwise
- Manual tilt: 0° - 90°
- Pan speed: 5°/sec.
- Maximum load: 4.4 lbs.
- Power consumption: 1 watt
- Size: 2.5"Dia. x 2.4"H
- Weight: 0.4 lbs.
- Warranty: 2 years continuous use

**Includes:** 24V @ 150mA power supply, wall mount bracket and mounting hardware

| Part No. | Description           | 1       | 10      |
|----------|-----------------------|---------|---------|
| 215407   | Mini pan/tilt Ⓢ ..... | \$49.95 | \$44.90 |



Camera not included



## Mount Your Video Camera Almost Anywhere

As steady as a tripod, the Window Camera Mount lets you anchor that video camera to any glass surface at any height.



Mount your video or CCTV camera on any window or other non-porous surface, and capture what you've never been able to before. This heavy-duty metal mounting bracket attaches securely to any glass surface with a strong lever-activated 3.25" neoprene suction cup. Mount your camera onto the tripod-style screw. Adjust to any position, and you're ready to shoot hands-free. It's perfect for temporary surveillance of your business or home. For cameras up to 3 lbs.

☉ Blue Part No. = Limited Quantity Available

| Part No. | Description                | 1       | 5       |
|----------|----------------------------|---------|---------|
| 222746   | CCTV camera window mount ☉ | \$32.49 | \$29.25 |

## Mounting Brackets for Enclosed Camera

- Material: plastic
- Base mounted with 3 screws
- Swivel angle: 360°
- Tilt angle: 90°
- For use w/ enclosed cameras (P/N 150404, pg 267)

171002: Ivory  
170982: White



| Part No. | Max Load (lbs.) | Ht. (in.) | 1      | 10     |
|----------|-----------------|-----------|--------|--------|
| 171002   | 11 lbs. ☉       | 6.4       | \$3.99 | \$3.19 |
| 170982   | 6.6 lbs. ☉      | 2.0       | 5.49   | 4.12   |

## Camera Mounting Bracket

- Aluminum construction (white coated)
- Maximum load: 6.5 lbs.
- Overall height: 5.1"
- Base diameter: 1.8"
- Swivel angle: 360°
- Tilt angle: 120°
- Base mounted w/ 3 screws (included)

| Part No. | Description | 1      | 10     |
|----------|-------------|--------|--------|
| 311191   | 15-B009 ☉   | \$6.65 | \$6.19 |

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## Honeywell

## Receptacle & Multimedia Wall Outlets



### Coax • Single RG6

| Part No. | Product No. | Color  | 1      | 10     |
|----------|-------------|--------|--------|--------|
| 636818   | REC-101CA   | Almond | \$1.15 | \$1.10 |

### RJ-11 Telephone • Single RJ-11

| Part No. | Product No. | Color  | 1      | 10     |
|----------|-------------|--------|--------|--------|
| 636842   | REC-101TA   | Almond | \$1.19 | \$1.15 |
| 636877   | REC-101TW   | White  | 1.19   | 1.15   |

### RJ-45 Telephone/Data • Single RJ-45

| Part No. | Product No. | Color  | 1      | 10     |
|----------|-------------|--------|--------|--------|
| 636834   | REC-101TSW  | White  | \$4.05 | \$3.83 |
| 636826   | REC-101TSA  | Almond | 4.05   | 3.83   |

### RJ-11 Telephone Hanging • Single RJ-11

| Part No. | Product No. | Color  | 1      | 10     |
|----------|-------------|--------|--------|--------|
| 636869   | REC-101THW♣ | White  | \$2.19 | \$2.05 |
| 636851   | REC-101THA  | Almond | 2.45   | 2.32   |

### Two Port Multimedia • RJ-45 and RG6

| Part No. | Product No. | Color  | 1      | 10     |
|----------|-------------|--------|--------|--------|
| 636885   | REC-102A    | Almond | \$5.15 | \$4.87 |
| 636893   | REC-102W♣   | White  | 4.59   | 4.34   |

See pages 267-268 for  
our Enclosed Cameras.



## Honeywell

## Accessories

### Icons for CAT5 Inserts

• Wheel of 16

| Part No. | Product No. | Description           | 1      | 10     | 100    |
|----------|-------------|-----------------------|--------|--------|--------|
| 636092   | IIDT♣       | Computer data icons   | \$2.29 | \$2.07 | \$1.88 |
| 636105   | IITP♣       | Telephone/voice icons | 1.85   | 1.76   | 1.67   |

### CAT5e Bezel • Pack of 10

| Part No. | Product No. | Description            | 1      | 10      | 100     |
|----------|-------------|------------------------|--------|---------|---------|
| 636113   | INS-BZ50♣   | Orange bezel for CAT5e | \$ .26 | \$ .244 | \$ .234 |

### CAT5e Bezels • Pack of 10

| Part No. | Product No. | Description          | 1      | 10     | 100    |
|----------|-------------|----------------------|--------|--------|--------|
| 636121   | INS-C5P     | RJ45 w/ blue bezel   | \$3.25 | \$3.07 | \$2.92 |
| 636130   | INS-C5RA    | RJ45 w/ almond bezel | 3.19   | 3.02   | 2.87   |

### RG6 Connectors w/ Bezel • Pack of 10

| Part No. | Product No. | Description             | 1      | 10     | 100    |
|----------|-------------|-------------------------|--------|--------|--------|
| 636156   | INS-CXP♣    | RG6 w/ bezel            | \$ .88 | \$ .83 | \$ .79 |
| 636164   | INS-CXRA    | F conn. w/ almond bezel | .99    | .94    | .89    |
| 636172   | INS-CXRW♣   | F conn. w/ white bezel  | .99    | .94    | .89    |

☉ Blue Part No. = Limited Quantity Available

## Mini Alarm Siren

- Sound pressure: 108dB
- Output frequency: 3000Hz
- Rated: 2-12VDC @ 300mA
- Adjustable mounting plate
- 16" color coded connector wires, tinned
- Size: 2.8"Dia. x 2.5"L



| Part No. | Description | 1      | 10     | 50     |
|----------|-------------|--------|--------|--------|
| 148152   | Alarm siren | \$8.95 | \$7.99 | \$6.35 |

## Notebook Computer Security Cable

This security cable uses a unique lock slot that is built into most of today's leading notebook computers. Safeguard your laptop, desktop and other valuable equipment.



Quantity SAVE

| Part No. | Description    | Length | 1       | 10      |
|----------|----------------|--------|---------|---------|
| 355573   | Security cable | 6 ft.  | \$26.85 | \$20.14 |

**Honeywell**

## Future Smart Distribution Panels and Modules

### AN-100 Basic Distribution Panel

Designed for installations where space is a premium. This economical panel provides distribution of voice and video signals throughout the home.

- Triple gang install ring and cover
- Video distribution: 1 line to 4 locations
- Telephone distribution: 4 lines to 6 locations (110 punch down)
- Size: 6.5"W x 4.75"H
- Coax distribution: 1 in, 4 out
- Supports cable type CAT3, CAT5 or CAT5e twisted pair, RG59 or RG6 coax cable



| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 635882   | AN-100      | \$32.55 | \$30.91 |

### MDT-122P/MDT-124P Telephone Distribution Modules

These versatile, full featured telephone distribution modules are designed to provide user-friendly management and control of telephone and data signals throughout the office or home. With built-in surge suppression, your phones and modems will be protected against bothersome power surges and spikes. These modules distribute signals to phones, fax machines, answering machines, caller ID's, and computer modems. High quality broadband designs and components are used throughout, assuring quality distribution from source to receiver.



- Module size: 12" (requires two expansion bays)
- Input: 2 pairs (2 lines)
- Output: 11 locations (12 when used with KSU)
- Wire: CAT3, CAT5 or CAT5e UTP
- Max. line voltage: 280V
- Max. surge amperage: 200A • Standard: USOC
- Protection modes: TG, RG • UL497A rating
- Category A ringwave (L-N) 200A: 300V

#### MDT-122P:

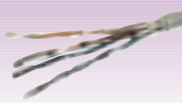
- Input: 2 pairs (2 lines)
- KSU/PBX interface: one 25-pair Amphenol/Telco connector

#### MDT-124P:

- RJ31x port for a quick and convenient connection to a security system
- Comes standard with the QNP6X, QNP12X and QNP18X distribution panels
- Input: 2 pairs (2 lines) • RJ31x port
- KSU/PBX interface: two 25-pair Amphenol/Telco connector

| Part No. | Product No. | Description       | 1       | 10      |
|----------|-------------|-------------------|---------|---------|
| 636412   | MDT-122P    | 11 outputs        | \$82.35 | \$78.24 |
| 636439   | MDT-124P    | 11 outputs, RJ31x | 163.85  | 155.64  |

CAT5/5e  
Network Cable  
see page 104



### MDT8-RJ/MDT16-RJ Telephone Distribution Modules

These telephone distribution modules are versatile, full featured modules designed to provide user-friendly management and control of telephone and data signals throughout the office or home. A built-in RJ31x port provides a quick and convenient connection to a security system. These modules distribute signals to phones, fax machines, answering machines, caller ID's, and computer modems. High quality broadband designs and components are used throughout, assuring quality distribution from source to receiver.



- Module size: 6" (requires one expansion bay)
- Input: 4 pairs, 110 punch down blocks
- Output: 8 locations (MDT8-RJ) 16 locations (MDT16-RJ), RJ-45 and an RJ31x port
- Standard: USOC • Wire: CAT3, CAT5 or CAT5e UTP

| Part No. | Product No. | Description      | 1       | 10      |
|----------|-------------|------------------|---------|---------|
| 636463   | MDT8-RJ     | 8 phone outputs  | \$33.39 | \$31.69 |
| 636447   | MDT16-RJ    | 16 phone outputs | 48.45   | 46.01   |

### MDX-48300/MDX-88300 Coax & Telephone Distribution Modules

These modules provide distribution of voice, data, and video signals throughout the office or home.



- Module size: 6" (requires one expansion bay)
- Coax bandwidth: 1GHz
- Coax forward path: 54 – 1000MHz
- Coax return path: 5 – 40MHz
- Telephone inputs: 4 lines, 110 punch down block
- Telephone outputs: 8 locations, 110 punch down block, and an RJ31x port
- Coax inputs: 1 TV/CATV, 2 pass-throughs for SATV & CCTV
- Supported cable: CAT3, CAT5 or CAT5e twisted pair, and RG59 or RG6 coax cable

**Includes:** RJ31x port for a security system

**MDX-48300:** with QND-4800 distribution panel

- Video distribution: 1 line to 4 locations
- Coax output: 4 locations

**MDX-88300:** with QND-8800 distribution panel

- Video distribution: 1 line to 8 locations
- Coax output: 12dB amplifier to 8 locations

| Part No. | Product No. | Description    | 1       | 10      |
|----------|-------------|----------------|---------|---------|
| 636471   | MDX-48300   | 4 coax outputs | \$40.19 | \$38.18 |
| 636498   | MDX-88300   | 8 coax outputs | 52.19   | 49.59   |

### MDT-124HB Punch Down Telephone Module for KSU

#### 12-Port, 4 Line

- 12 110-punch down blocks which distribute four incoming lines to 12 locations
- 6" form factor



| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 636421   | MDT-124HB   | \$40.19 | \$38.18 |

### MDT-083P Telephone Module

#### 8-Port, 3-Line

RJ-11 harmonica style twisted pair module is designed to work with Panasonic Key Service Units (KSU) that require a three pair connection.

- 6" form factor



| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 636404   | MDT-083P    | \$81.45 | \$77.33 |

### MDRP-114 Web Safe Internet Router

The MDRP-114 Cable/DSL fire-wall internet router provides internet security for homes and



small offices. With keyword and website parental control, parents can block websites that contain offensive content. The MDRP-114 also allows parents to control when and how long the internet is used. The router includes network address translation (NAT), which provides the first line of defense against computer hackers. Additionally, the router will keep a record of attempts to access restricted material or websites, or attempts to hack into your computer, and notify you via email. This will also allow you to share high speed cable/DSL internet access with as many as 253 users.

- 4 RJ45 10/100 auto switching ports
- DHCP (dynamic host configuration protocol) for simplifying LAN configurations
- Hub size: 6.25"W x 4.0"D x 1.25"H single height (requires one expansion slot)
- Routing protocols: TCP/IP, RIP-1, RIP-2, NAT, DHCP, PPTP, PPPoE, IPSec
- Power adapter: 12VDC @ 1.2A
- 5 RJ-45 ports with 1 cascade RJ-45 port
- Interface: LAN – 10BaseT or 100BaseTX; WAN 10BaseT

| Part No. | Product No. | 1        | 10       |
|----------|-------------|----------|----------|
| 636383   | MDRP-114    | \$196.85 | \$186.96 |

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See [www.Jameco.com/DMM](http://www.Jameco.com/DMM) for accuracy and complete specifications



- Extech MN35
- 2000 count
  - 5 functions
  - Temperature function



P/N 645618  
\$18.99



- Mastech M300
- 2000 count
  - 6 functions
  - Extremely low cost



P/N 220812  
\$9.79



- Velleman DVM850BL
- 2000 count
  - 6 functions



P/N 355207  
\$16.75



- Jameco JE110
- 2000 count
  - 6 functions
  - 100µV resolution



P/N 119212  
\$19.95



- BP-1562
- 2000 count
  - 6 functions



P/N 318781  
\$9.95



- Mastech MAS830L
- 2000 count
  - 7 functions
  - Continuity test



P/N 220759  
\$13.95



- Mastech MAS838
- 2000 count
  - 8 functions
  - Temperature



P/N 220741  
\$19.95



- BP-1206
- 2000 count
  - 8 functions
  - Auto-zero



P/N 27116  
\$31.69



- Extech MV110
- 2000 count
  - 8 functions
  - Tilttable display



P/N 197958  
\$36.95



- Mastech MY64
- 2000 count
  - 11 functions
  - Temp. & frequency



P/N 220775  
\$38.79



- Velleman DVM890F
- 2000 count
  - 11 functions



P/N 645571  
\$36.95

| Jameco Part No. | Product No.       | Display Count | No. of Functions | Resolution (max DC) | DC Voltage Ranges (V) | AC Voltage Ranges (V) | DC Current Ranges (A) | AC Current Ranges (A) | Resistance Ranges (Ω) | Capacitance Ranges (F) | Inductance Ranges (H) |   | Frequency Ranges (Hz) | Temperature Range |             | Diode Test | Logic Test | Continuity Test | Transistor hFE Test | Autorange | Analog Bargraph | RS-232 PC Interface | True RMS        | Size (H"xW"xD") | Jameco Part No. | Pricing |   |
|-----------------|-------------------|---------------|------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|---|-----------------------|-------------------|-------------|------------|------------|-----------------|---------------------|-----------|-----------------|---------------------|-----------------|-----------------|-----------------|---------|---|
|                 |                   |               |                  |                     |                       |                       |                       |                       |                       |                        |                       |   |                       | °C                | °F          |            |            |                 |                     |           |                 |                     |                 |                 |                 | 1       | 5 |
| 645618          | Extech MN35       | 2000          | 5                | 100µV               | 200m - 600            | 200 - 600             | 200m - 10             | —                     | 200 - 20M             | —                      | —                     |   | —                     | -20 to 750        | -40 to 1400 | ✓          |            | ✓               |                     |           |                 |                     | 5.4 x 2.8 x 1.5 | 645618          | \$18.99         | \$18.05 |   |
| 220812          | Mastech M300      | 2000          | 6                | 1mV                 | 2 - 500               | 200 - 500             | 200mA                 | —                     | 2k - 2M               | —                      | —                     |   | —                     | —                 | —           | ✓          |            | ✓               |                     |           |                 |                     | 4.7 x 2.7 x 0.8 | 220812          | 9.79            | 8.85    |   |
| 355207          | Velleman DVM850BL | 2000          | 6                | 100µV               | 200m - 100            | 200 - 600             | 200µ - 10             | —                     | 200 - 2M              | —                      | —                     | ↔ | —                     | —                 | —           | ✓          |            | ✓               | ✓                   |           |                 |                     | 5.4 x 2.7 x 1.2 | 355207          | 16.75           | 15.92   |   |
| 119212          | Jameco JE110      | 2000          | 6                | 100µV               | 200m - 1000           | 200 - 750             | 200µ - 10             | —                     | 200 - 2M              | —                      | —                     |   | —                     | —                 | —           | ✓          |            |                 | ✓                   |           |                 |                     | 4.8 x 2.6 x 1.0 | 119212          | 19.95           | 17.90   |   |
| 318781          | BenchPro BP-1562  | 2000          | 6                | 100µV               | 200m - 600            | 200 - 750             | 200µ - 10             | —                     | 200 - 2M              | —                      | —                     |   | —                     | —                 | —           | ✓          |            |                 | ✓                   |           |                 |                     | 5.4 x 2.7 x 1.2 | 318781          | 9.95            | 9.45    |   |
| 220759          | Mastech MAS830L   | 2000          | 7                | 100µV               | 200m - 600            | 200 - 600             | 200µ - 10             | —                     | 200 - 2M              | —                      | —                     |   | —                     | —                 | —           | ✓          |            | ✓               | ✓                   |           |                 |                     | 5.7 x 3.0 x 1.4 | 220759          | 13.95           | 13.24   |   |
| 220741          | Mastech MAS838    | 2000          | 8                | 100µV               | 200m - 600            | 200 - 600             | 2m - 10               | —                     | 200 - 2M              | —                      | —                     |   | —                     | -20 to 1000       | —           | ✓          |            | ✓               | ✓                   |           |                 |                     | 5.7 x 3.0 x 1.4 | 220741          | 19.95           | 15.96   |   |
| 27116           | BenchPro BP-1206  | 2000          | 8                | 100µV               | 200m - 1000           | 200m - 700            | 20µ - 10              | 20µ - 10              | 200 - 20M             | —                      | —                     |   | —                     | —                 | —           | ✓          |            | ✓               | ✓                   |           |                 |                     | 6.8 x 3.5 x 1.4 | 27116           | 31.69           | 28.85   |   |
| 197958          | Extech MV110      | 2000          | 8                | 100µV               | 200m - 1000           | 200m - 750            | 20µ - 10              | 20µ - 10              | 200 - 200M            | —                      | —                     |   | —                     | —                 | —           | ✓          |            | ✓               | ✓                   |           |                 |                     | 7.3 x 3.5 x 1.3 | 197958          | 36.95           | 35.19   |   |
| 220775          | Mastech MY64      | 2000          | 11               | 100µV               | 200m - 1000           | 200m - 700            | 2m - 10               | 2m - 10               | 200 - 200M            | 2n - 20µ               | —                     | ↔ | 2k - 20k              | -20 to 1000       | —           | ✓          |            | ✓               | ✓                   |           |                 |                     | 7.4 x 3.6 x 1.3 | 220775          | 38.79           | 34.91   |   |
| 645571          | Velleman DVM890F  | 2000          | 11               | 100µV               | 200m - 1000           | 2 - 700               | 2m - 20               | 20m - 20              | 200 - 200M            | 2000p - 20µ            | —                     |   | —                     | —                 | -58 to 1832 | ✓          |            | ✓               | ✓                   |           |                 |                     | 6.7 x 3.5 x 1.5 | 645571          | 36.95           | 35.15   |   |
| 182035          | Fluke 73-III      | 3200          | 9                | 100µV               | 320m - 600            | 320m - 600            | 320m - 10             | 320m - 10             | 320 - 32M             | —                      | —                     |   | —                     | —                 | —           | ✓          |            | ✓               |                     | ✓         | ✓               |                     | 6.6 x 3.0 x 1.1 | 182035          | 189.89          | 180.39  |   |
| 220767          | Mastech MY68      | 3260          | 12               | 100µV               | 326m - 1000           | 3.26 - 700            | 326µ - 10             | 326µ - 10             | 326 - 32.6M           | 326n - 32.6µ           | —                     |   | 32.6k - 150k          | —                 | —           | ✓          |            | ✓               | ✓                   | ✓         | ✓               |                     | 7.4 x 3.6 x 1.3 | 220767          | 35.95           | 32.36   |   |
| 645626          | Extech EX330*     | 4000          | 9                | 100µV               | .1m - 1000            | .1m - 750             | .1µ - 10              | .1µ - 10              | .1 - 40M              | .001n - 200µ           | —                     |   | .001 - 10M            | -50 to 1000       | -58 to 1832 | ✓          |            | ✓               | ✓                   | ✓         |                 |                     | 5.7 x 2.9 x 1.6 | 645626          | 47.45           | 45.15   |   |
| 1581177         | Extech EX430      | 4000          | 9                | 100µV               | .1m - 1000            | .1m - 750             | .1µ - 20              | .1µ - 20              | .1 - 40M              | .1n - 100µ             | —                     |   | .001 - 10             | -20 to 750        | -4 to 1382  | ✓          |            | ✓               | ✓                   | ✓         | ✓               | ✓                   | 7.4 x 3.2 x 2.0 | 1581177         | 79.95           | 77.95   |   |
| 216514          | Metex ME-31       | 4000          | 10               | 100µV               | 400m - 1000           | 400m - 750            | 4m - 20               | 4m - 20               | 400 - 4M              | —                      | —                     |   | —                     | —                 | —           | ✓          |            | ✓               |                     | ✓         | ✓               | ✓                   | 7.3 x 3.3 x 1.5 | 216514          | 56.95           | 54.15   |   |
| 692502          | Extech DM110      | 4000          | 10               | 100µV               | 0 - 500               | 0 - 500               | 0 - .40               | 0 - .40               | 400 - 40M             | 0 - 200µ               | —                     | ↔ | 9 - 10M               | —                 | —           | ✓          |            | ✓               |                     | ✓         | ✓               | ✓                   | 4.3 x 2.2 x 0.5 | 692502          | 27.99           | 26.59   |   |
| 211650          | Extech MN26       | 4000          | 11               | 100µV               | 400m - 600            | 400m - 600            | 400µ - 10             | 400µ - 10             | 400 - 40M             | 4n - 200µ              | —                     |   | 10 - 10M              | 0 to 760          | 0 to 1400   | ✓          |            | ✓               |                     | ✓         |                 |                     | 4.8 x 2.4 x 1.6 | 211650          | 39.95           | 37.95   |   |
| 117373          | BenchPro BP-1949  | 4000          | 11               | 100µV               | 400m - 400            | 4 - 400               | 400µ - 10             | 400µ - 10             | 400 - 4M              | 50n - 100µ             | —                     |   | 5 - 50k               | -20 to 1000       | —           | ✓          |            | ✓               |                     | ✓         |                 | ✓                   | 7.7 x 3.6 x 1.6 | 117373          | 89.95           | 71.90   |   |
| 137462          | BenchPro BP-1737  | 4000          | 11               | 100µV               | 400m - 400            | 4 - 400               | 400µ - 10             | 400µ - 10             | 400 - 4M              | 50n - 100µ             | —                     |   | 5 - 50k               | -20 to 1000       | —           | ✓          |            | ✓               |                     | ✓         |                 | ✓                   | 7.7 x 3.6 x 1.6 | 137462          | 119.95          | 89.96   |   |
| 215589          | Metex M3890D      | 4000          | 15               | 100µV               | 400m - 1000           | 4 - 750               | 400µ - 20             | 400µ - 20             | 400 - 40M             | 4n - 200µ              | —                     |   | 4k - 4M               | -40 to 1200       | -40 to 2192 | ✓          | ✓          | ✓               | ✓                   | ✓         | ✓               | ✓                   | 7.8 x 3.5 x 1.7 | 215589          | 99.95           | 94.99   |   |

\* with non-contact voltage detector (100-600VAC range)

Blue Part No. = Limited Quantity Available

DMMs continued on pages 274-275.

DMMs continued on pages 274 - 275.



- Fluke 73-III
- 3200 count
  - 9 functions
  - Autorange/frequency
  - Analog bargraph



P/N 182035  
\$189.89



- Mastech MY68
- 3260 count
  - 12 functions
  - Autorange
  - Analog bargraph



P/N 220767  
\$35.95



- Extech EX330\*
- 4000 count
  - 9 functions
  - Non-contact AC voltage detector



P/N 645626  
\$47.45



- Extech EX430
- 4000 count
  - True RMS
  - Auto ranging



P/N 1581177  
\$79.95



- Metex ME-31
- 4000 count
  - 10 functions/RS232
  - Autorange
  - Analog bargraph



P/N 216514  
\$56.95



- Extech DM110
- 4000 count
  - 10 functions
  - Autorange



P/N 692502  
\$27.99



- Extech MN26
- 4000 count
  - 11 functions
  - Autorange
  - Temp./frequency



P/N 211650  
\$39.95



- BP-1949
- 4000 count
  - 12 functions/RS-232
  - Autorange
  - Temp./frequency



P/N 117373  
\$89.95



- BP-1737
- 4000 count
  - 12 functions/RS-232
  - Autorange
  - Temp./frequency



P/N 137462  
\$119.95




- Metex M3890D
- 4000 count
  - 15 functions/USB
  - Autorange
  - Temp./frequency



P/N 215589  
\$99.95



See [www.Jameco.com/DMM](http://www.Jameco.com/DMM) for accuracy and complete specifications

RoHS  RoHS Compliant Product  
RoHS Also Available Details on Page 1

Color Code Legend  
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See [www.Jameco.com/DMM](http://www.Jameco.com/DMM) for accuracy and complete specifications

EXTECH

Extech MP510  
• 5000 count  
• Backlit LCD/  
auto power off

NEW



P/N 1581185  
\$139.95

FLUKE

Fluke 115  
• 6000 count  
• Backlit  
• True RMS

Fluke 117  
• 6000 count  
• Backlit  
• True RMS  
• Non-contact voltage

NEW



P/N 1537328  
\$149.95

FLUKE

Fluke 175  
• 6000 count  
• 12 functions  
• Autorange  
• Frequency



P/N 192655  
\$219.89

FLUKE

Fluke 179  
• 6000 count  
• 13 functions  
• Autorange  
• Temperature  
• Frequency



P/N 185535  
\$239.89

velleman

Velleman  
DVM205AM  
• 10,000 count  
• 7 functions  
• Temperature  
• Frequency



P/N 645562  
\$61.69

WAVETEK  
Meterman

Wavetek/MM 37XR  
• 10,000 count  
• 14 functions  
• Inductance  
• Autorange  
• dB display



P/N 222527  
\$129.49

WAVETEK  
Meterman

Wavetek/MM 38XR  
• 10,000 count  
• 14 functions/RS232  
• Autorange  
• Temperature  
• Frequency



P/N 222543  
\$149.49

JAMECO BenchPro

BP-1415  
• 20,000 count  
• 8 functions  
• Capacitance

A Jameco EXCLUSIVE



P/N 318764  
\$73.49

FLUKE

Fluke 189  
• 50,000 count  
• 13 functions  
• Data logging  
• Temperature  
• Frequency



P/N 182043  
\$429.89

Protek

Protek 6800  
• 80,000 count  
• RPM, DBM  
function  
• Square wave  
generator

NEW



P/N 1581214  
\$193.95

DMMs continued from pages 272-273.

| DMMs continued from pages 272-273. |                   |               |                  | Basic Measurement Functions |                       |                       |                       |                       |                       |                        |                       |   |                       |                   |              |            | Test Functions |                 |                     |           | Special Functions |                     |          |                  | DMMs continued from pages 272-273. |          |          |  |
|------------------------------------|-------------------|---------------|------------------|-----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|---|-----------------------|-------------------|--------------|------------|----------------|-----------------|---------------------|-----------|-------------------|---------------------|----------|------------------|------------------------------------|----------|----------|--|
| Jameco Part No.                    | Product No.       | Display Count | No. of Functions | Resolution (max DC)         | DC Voltage Ranges (V) | AC Voltage Ranges (V) | DC Current Ranges (A) | AC Current Ranges (A) | Resistance Ranges (Ω) | Capacitance Ranges (F) | Inductance Ranges (H) |   | Frequency Ranges (Hz) | Temperature Range |              | Diode Test | Logic Test     | Continuity Test | Transistor hfe Test | Autorange | Analog Bargraph   | RS-232 PC Interface | True RMS | Size (H"xW"xD")  | Jameco Part No.                    | Pricing  |          |  |
|                                    |                   |               |                  |                             |                       |                       |                       |                       |                       |                        |                       |   |                       | °C                | °F           |            |                |                 |                     |           |                   |                     |          |                  |                                    | 1        | 5        |  |
| 1581185                            | Extech MP510      | 5000          | 7                | 10µV                        | 50m - 1000            | 50m - 1000            | 500µ - 10             | 500µ - 10             | 50 - 50M              | 50n - 9999µ            | —                     | ↔ | 0.01 - 125k           | —                 | —            | ✓          |                | ✓               |                     |           | ✓                 | ✓                   | ✓        | 7.4 x 3.4 x 1.4  | 1581185                            | \$139.95 | \$135.99 |  |
| 1537328                            | Fluke 115         | 6000          | 9                | 100µV                       | 600m - 600            | 600m - 600            | 6 - 20                | 6 - 20                | 600 - 40M             | 1000n - 9999µ          | —                     |   | 99.99 - 50k           | —                 | —            | ✓          |                | ✓               |                     |           | ✓                 | ✓                   | ✓        | 10.9 x 6.3 x 2.2 | 1537328                            | 149.95   | 147.95   |  |
| 1537336                            | Fluke 117*        | 6000          | 9                | 100µV                       | 600m - 600            | 600m - 600            | 6 - 20                | 6 - 20                | 600 - 40M             | 1000n - 9999µ          | —                     |   | 99.99 - 50k           | —                 | —            | ✓          |                | ✓               |                     |           | ✓                 | ✓                   | ✓        | 10.9 x 6.3 x 2.2 | 1537336                            | 179.95   | 177.95   |  |
| 192655                             | Fluke 175         | 6000          | 12               | 100µV                       | 600m - 1000           | 600m - 1000           | 60m - 10              | 60m - 10              | 600 - 50M             | 1000n - 9999µ          | —                     | ↔ | 99.99 - 99.99k        | —                 | —            | ✓          |                | ✓               |                     | ✓         | ✓                 | ✓                   | ✓        | 7.3 x 3.5 x 1.7  | 192655                             | 219.89   | 208.89   |  |
| 185535                             | Fluke 179†        | 6000          | 13               | 100µV                       | 600m - 1000           | 600m - 1000           | 60m - 10              | 60m - 10              | 600 - 50M             | 1000n - 9999µ          | —                     |   | 99.99 - 99.99k        | -40 to 400        | -40 to 752   | ✓          |                | ✓               |                     | ✓         | ✓                 | ✓                   | ✓        | 7.3 x 3.5 x 1.7  | 185535                             | 239.89   | 227.89   |  |
| 645562                             | Velleman DVM205AM | 10,000        | 7                | 100µV                       | 400m - 100V           | 400m - 750            | 400m - 10             | 400m - 10             | 400 - 40M             | 40n - 100µ             | —                     |   | 9.999 - 9.999M        | -20 to 760        | -4 to 1400   | ✓          |                | ✓               |                     | ✓         | ✓                 | ✓                   | ✓        | 6.2 x 3.0 x 1.8  | 645562                             | 61.69    | 59.55    |  |
| 222527                             | Wavetek/MM 37XR   | 10,000        | 14               | 100µV                       | 1000m - 1000          | 1000m - 750           | 100m - 10             | 100m - 10             | 1000 - 40M            | 40n - 400µ             | 4m - 40               | ↔ | 100 - 10M             | —                 | —            | ✓          | ✓              | ✓               |                     | ✓         | ✓                 |                     | ✓        | 7.8 x 3.6 x 2.4  | 222527                             | 129.49   | 122.99   |  |
| 222543                             | Wavetek/MM 38XR   | 10,000        | 14               | 100µV                       | 1000m - 1000          | 1000m - 750           | 100m - 10             | 100m - 10             | 1000 - 40M            | 40n - 400µ             | —                     |   | 100 - 10M             | -20 to 1300       | -4 to 2372   | ✓          |                | ✓               |                     | ✓         | ✓                 | ✓                   | ✓        | 7.8 x 3.6 x 2.4  | 222543                             | 149.49   | 141.99   |  |
| 318764                             | BenchPro BP-1415  | 20,000        | 8                | 10µV                        | 200m - 1000           | 2 - 700               | 2m - 20               | 2m - 20               | 200 - 200M            | 2000p - 20µ            | —                     |   | 20k                   | —                 | —            | ✓          |                | ✓               | ✓                   | ✓         | ✓                 |                     | ✓        | 7.4 x 3.6 x 1.2  | 318764                             | 73.49    | 66.15    |  |
| 182043                             | Fluke 189         | 50,000        | 13               | 1µV                         | 50m - 1000V           | 50m - 1000            | 500m - 10             | 500m - 10             | 500 - 500M            | 1n - 50µ               | —                     | ↔ | 500 - 999.99k         | -200 to 1350      | -328 to 2462 | ✓          |                | ✓               |                     | ✓         | ✓                 |                     | ✓        | 8.0 x 3.9 x 2.0  | 182043                             | 429.89   | 416.99   |  |
| 1581214                            | Protek 6800       | 80,000        |                  | 1µV                         | 8 - 1000              | 80m - 750             | 80m - 10              | 80m - 10              | 80 - 80M              | 1n - 100µ              | —                     |   | 1K - 8M               | -50 to 1372       | -58 to 2502  | ✓          |                | ✓               |                     | ✓         | ✓                 | ✓                   | ✓        | 7.5 x 3.5 x 1.5  | 1581214                            | 193.95   | 189.95   |  |

\* with non-contact voltage † with backlight

EXTECH

### Passive-Component Digital LCR Meter

- 4½-digit backlit LCD display
- Measures L, C, and R with secondary parameter Q, D or R; both are displayed
- Inductance ranges: 2000µH to 10,000H
- Capacitance ranges: 2000pF to 10mF
- Resistance ranges: 20Ω to 10MΩ
- Selectable parallel or series equivalent circuit
- Set HI/LO limits, absolute or percentage
- Bidirectional RS-232 port with optional software
- Max./Min./Avg. recording with auto power off
- Accuracy of 0.7% for L & C, 0.5% for R
- Test frequencies of 120Hz and 1kHz
- Dissipation Factor (D) reading: 0 to 0.9999
- Quality (Q) reading: 0 to 9999
- Size: 3.6"W x 2.1"D x 7.6"H
- Weight: 0.8 lbs.

Includes: Test leads, alligator clips, 9V battery & holster

| Part No. | Description                | 1        | 10       |
|----------|----------------------------|----------|----------|
| 198678   | LCR Meter .....            | \$178.95 | \$160.95 |
| 189238   | 9VDC @ 300mA adapter ..... | 4.79     | 4.31     |

MASTECH

### 15A AC Line Separator for AC Current Clamp Meters

- Max. overload: 250VAC @ 15A
- X1 and X10 clamp areas
- Socket compatible with US & European connectors
- Convenient 0.1" dia. tip test points for neutral/earth/line

| Part No. | Description              | 1      | 10     | 25     |
|----------|--------------------------|--------|--------|--------|
| 162325   | 3-prong US-type plug ... | \$9.99 | \$8.99 | \$8.09 |

### High Voltage AC/DC Test Probe

- Maximum voltages: DC: 40kV, AC: 40kV peak, 28kVrms
- Accuracy: DC: ±1.5%, AC: ±5%
- 10MΩ meter input impedance required
- Input/output impedance: 1,000MΩ/1.1MΩ
- Cable length: 39" • Probe length: 14" • Wt: 0.8 lbs.

| Part No. | Description                 | 1       | 10      |
|----------|-----------------------------|---------|---------|
| 132290   | High volt. test probe ..... | \$79.95 | \$65.48 |

### 3-in-1 Lab Center



### Mini DC/AC 2000-Count Clamp Meter/Multimeter

- Bright 1/2" LCD
- Compatible with P/N 162325, pg 274
- DATA HOLD
- 0.5" digit height
- Size: 7.1"L x 1.9"W x 1.4"H
- Weight: 0.9 lbs.

Requires: 9V battery not included (P/N 151095, pg 250)

Includes: Test leads, manual and case

| Part No. | Description                 | 1        | 10      |
|----------|-----------------------------|----------|---------|
| 115756   | Mini DC/AC clamp meter .... | \$119.95 | \$89.96 |

### 50mV/50A Current Shunt

- Current range: 0 to 50A
- Accuracy: 0.8% ±0.2mV
- Output ratio: 1mV/1A
- Max. current: 100A

| Part No. | Description         | 1       | 10      | 25      |
|----------|---------------------|---------|---------|---------|
| 162309   | Current shunt ..... | \$24.95 | \$22.49 | \$19.95 |

Digital Multimeter, Regulated Power Supply, and Soldering Station. See page 296.

### Don't Get Caught without One!

DMM's are so inexpensive today that we should never be caught without one. While many of us generally need a highly-accurate, full-function multimeter for some testing, often a basic low-cost device will get the job done.

In lab situations, I find that having a DMM dedicated to each work area is most effective. A few associates reduce pilfering by assigning locked tool cabinets to each lab and lead. Others use holsters to keep secondary devices with them at all times.

Whatever works best for your situation, just be sure to equip your team and yourself for maximum efficiency. It's a small cost for a relatively reasonable productivity gain.

Practical Practices  
Money Saving Tips for the Engineer



EXTECH

### 400A AC/DC Clamp Meter/Multimeter

- Auto ranging with auto power-off
  - Continuity beeper and diode test
  - Over range and low battery indicators
  - One touch "Auto Zero"
  - Data hold freezes current reading on display
  - Measures AC/DC current, DCV, ACV, resistance, capacitance, frequency, temperature, and duty cycle
  - Basic voltage accuracy: AC: ±2.0%; DC: ±1.5%
  - AC/DC current ranges: 40A–400A; 0.01A max. res.
  - Capacitance ranges: 40nF–1000µF; 0.01nF max. res.
  - DC/AC volt. ranges: 400mV–600V; 0.1mV max. res.
  - Resistance: 400Ω–40MΩ; 0.1Ω resolution
  - Duty cycle: 0.5%–0.99%; 0.1% max. res.
  - Frequency ranges: 5Hz–150kHz; 0.001Hz max. res.
  - Temperature ranges: -58° to +1830°F (-50° to +1000°C); 1° max. resolution
- Includes: Test leads, case, and 2 AAA batteries

| Part No. | Product No. | Description                                     | 1       | 5       |
|----------|-------------|---|---------|---------|
| 374070   | MA220       | 400A AC/DC current clamp meter/multimeter ..... | \$83.69 | \$78.67 |

### Free Technical Support

Our knowledgeable Tech Support department is ready to answer your questions. Just call us! 1-800-831-4242



## Automotive Digital Multimeter

- RPM (2/4/5/6/8 cylinder) range: 0 – 10,000RPMs
- Dwell angle: 0-180°
- Temperature ranges: -20°C to +760°C (-4°F to 1400°F)
- Large 4-digit backlight LCD display (1" character height)
- Resolution: 100µV max.
- DC voltage ranges: 400mV to 100V
- AC voltage ranges: 400mV to 750V
- DC / AC current ranges: 400µA to 10A
- Resistance ranges: 400Ω to 40MΩ
- Capacitance ranges: 40nF to 100µF
- Frequency ranges: 9.999Hz to 9.999MHz
- Auto/Manual selection range
- Diode and continuity tests
- Auto power off
- Data hold + relative function
- Overload protection
- Size: 6.2"H x 3.0"W x 1.8"D
- Weight: 1.3 lbs.

Includes: Manual, 9V battery, test/temp. probes

| Part No. | Product No. | 1       | 10      | 25      |
|----------|-------------|---------|---------|---------|
| 645562   | DVM205AM    | \$61.69 | \$59.55 | \$56.59 |



Velleman

## 4000-Count True-RMS Benchtop Multimeter with RS-232

- 9 functions, 32 ranges
- 3½-digit backlit LCD display with bargraph
- Auto/manual ranging
- True RMS AC volts and amps
- Resolution: 100µV maximum
- DC voltage ranges: 400mV – 1000V (0.3% accuracy)
- AC voltage ranges: 4V – 750V
- DC/AC current ranges: 4mA – 10A
- Resistance ranges: 400Ω – 40MΩ
- Capacitance ranges: 4nF – 40µF
- Frequency ranges: 100Hz – 600kHz
- Diode and continuity test
- Delay hold mode
- Min., max., and relative hold function
- Input voltage: 9V battery or 90-132VAC/198-264VAC @ 50-60Hz
- Weight: 3.3 lbs.
- Size: 9.0"W x 9.4"D x 3.3"H
- Two-year warranty

Includes: Manual, test leads, power adapter, 9V battery, RS-232 cable and software (Windows® 98/ME/2000/XP compatible)

| Part No. | Product No. | 1        | 5        |
|----------|-------------|----------|----------|
| 230586   | B940        | \$148.95 | \$141.55 |



Protek

## 2000-Count Multimeters

- Resolution: 100µV maximum
- DC voltage ranges: 200mV – 1000V
- Size: 7.5"W x 9.6"D x 2.5"H
- Weight: 2.6 lbs.

160830: 3 1/2-Digit

- DC/AC current ranges: 20µA – 10A
- AC voltage ranges: 200mV – 700V
- Resistance ranges: 200Ω – 20MΩ
- Conductance ranges: 2µS – 200nS

203801: 3 1/2-Digit

- DC/AC current ranges: 20µA – 2A
- AC voltage ranges: 200mV – 700V
- Resistance ranges: 200Ω – 20MΩ
- Conductance ranges: 2µS – 200nS

421542: 3 1/2-Digit

- DC/AC current ranges: 200µA – 2A
- AC voltage ranges: 200mV – 750V
- Resistance ranges: 200Ω – 20MΩ
- Conductance ranges: 2mS – 200nS
- Frequency ranges: 20Hz – 50kHz

♣ Refurbished = Backed by Jameco

| Part No. | Product No. | Price    |
|----------|-------------|----------|
| 160830   | 8010A♣      | \$199.95 |
| 203801   | 8012A♣      | 199.95   |
| 421542   | 8050A♣      | 219.95   |

Detailed specifications for Oscilloscopes at [www.Jameco.com/OScopes](http://www.Jameco.com/OScopes)

## We're Listening to What You Need

Our goal is to provide you with more of what you want. Let us know how we can better serve your electronics needs.

Please send your requests to  
**NewProducts@Jameco.com.**

## 20,000-Count True-RMS Benchtop Multimeter

- 4½-digit green LCD
- DC accuracy: 0.05%
- Full overload protection
- Resolution: 10µV max.
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200mV – 750V
- DC/AC current ranges: 2mA – 10A
- Resistance ranges: 200Ω – 20MΩ
- Frequency measurement up to 200kHz
- Continuity check with beeper
- Data hold, diode check, transistor  $h_{FE}$  measurement available
- Size: 9.9"L x 9.8"W x 3.6"H
- One-year manufacturer's warranty
- Weight: 6.1 lbs.

| Part No. | Product No. | 1        | 10       | 25       |
|----------|-------------|----------|----------|----------|
| 132564   | DM441       | \$269.95 | \$256.49 | \$243.49 |



EZ DIGITAL

## 20,000-Count Benchtop Multimeter w/ RS-232, Analog Bar & 4 Displays

- Automatic polarity indicator
- 1-2 readings/second
- DC accuracy: 0.1% +5 digits
- 10 reading storage and compare
- Resolution: 10µV max.
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200mV – 750V
- DC/AC current ranges: 2mA – 20A
- Resistance ranges: 200Ω – 20MΩ
- Frequency ranges: 20kHz – 20MHz
- Min., max., average, relative functions
- Logic, diode, transistor  $h_{FE}$  and continuity test
- Size: 11.2"L x 8.2"W x 3.2"H
- Weight: 7.5 lbs.

Includes: Manual, power cable, probes and software

♣ Blue Part No. = Limited Quantity Available

| Part No. | Product No. | 1        | 10       |
|----------|-------------|----------|----------|
| 166852   | MXD4660A♣   | \$254.35 | \$242.25 |



METEX®

## Handheld 2MHz Digital Oscilloscope with 3½-Digit Multimeter

- 10MHz for repetitive signals; 2MHz for single shot events
- Input impedance: 1MΩ/20pF
- Max. input voltage: 100V peak (AC + DC)
- Input coupling: DC, AC, and GND (GND for auto zero reference)
- LCD graphics display: 64 x 128 pixels
- Vertical resolution: 8-bit
- Timebase range: 0.2µs to 1 hr./div
- Input sensitivity: 5mV to 20V/div
- Linearity: ±1 bit
- Screen hold
- Trigger mode: run, normal, once, and ± slope
- True RMS and dB measurements
- High contrast 3.3" diagonal LCD display
- Recommend 9VDC @ 300mA power supply (133891, pg 241)
- Weight: 1.0 lb.
- Batteries not included

Includes: DVM850 multimeter (below) and insulated BNC-to-alligator clip measurement probes

### 6-Function Multimeter:

- 3½ digit w/ backlight, 2000 count
- Data hold function
- DC voltage ranges: 200mV to 100V
- AC voltage ranges: 200/600
- DC current ranges: 200µA to 10A
- Resistance ranges: 200Ω to 2MΩ
- Diode, transistor and continuity test
- Power supply: 9V battery (included)
- Size: 2.7"W x 1.2"D x 5.4"H

| Part No. | Description                               | 1        | 5        |
|----------|---|----------|----------|
| 355485   | 2MHz Oscilloscope w/ DMM (HPS10 + DVM850) | \$194.95 | \$185.25 |



Velleman



355207 (DVM850) can be purchased separately, pg 272



## Handheld 5MHz Digital Oscilloscope with true-RMS Multimeter

- 5MHz bandwidth
- Record length: 512 single shot, 256 all other functions
- Sample mode: single shot, roll, normal
- Vertical sensitivity: 50mV max.
- Input volt.: 600VDC or AC RMS max.
- Trigger modes: auto, normal, single
- Trigger source: channel A, channel B, external
- Trigger coupling: AC, DC
- Timebase: 1µS to 5S
- Input impedance: 1MΩ
- Sampling time: 25MS/s dual channel; 50MS/s single channel
- 132 x 128 pixel super-twist two level backlit display
- Data hold and low battery indications
- RS-232 PC interface and software for transferring waveforms and data
- Resolution: 100uV max.
- DC voltage ranges: 0.001V to 1000V
- AC (TRMS) voltage ranges: 0.001V to 750V
- Resistance ranges: 1Ω to 5MΩ
- Frequency ranges: 0.01Hz to 10MHz
- RPM ranges: 240 to 60,000 RPMs
- Size: 3.5"W x 1.8"D x 7.7"H

Includes: Test leads, alligator clips, Ni-MH battery pack, AC adaptor/charger, RS-232 cable, holster, and carrying case

| Part No. | Product No. | 1        | 5        |
|----------|-------------|----------|----------|
| 645651   | 381295      | \$427.49 | \$406.15 |



EXTECH



## 2MHz Panel Mount Oscilloscope

This compact scope at only 1.4" deep is perfect for continuous monitoring and system analysis.

- High contrast LCD display with backlight, 128 x 64 pixels
- Maximum sample rate: 10MHz for repetitive signals (2MHz for single shot events)
- Maximum input amplifier bandwidth: 2MHz
- Input impedance: 1MΩ/20pF
- Maximum input voltage: 100Vpeak (AC+DC); 200Vp-p (AC only)
- Input coupling: DC, AC, and GROUND
- Vertical resolution: 8-bit
- Trigger modes: Run, normal, roll mode for 1s/div and slower time base
- Signal storage: 256 samples max., 125 samples visible
- dBm measurement: -73dB to 40dB\*
- dBV measurement: -75dB to 38dB\*
- True RMS measurement: 0.1mV to 80V\*
- Peak to peak AC range: 0.1mV to 160V\*
- Timebase ranges in 32 steps: 0.2μs to 1 hour/division
- Input sensitivity ranges in 12 steps: 5mV to 20V/division @ x1; 50mV to 200V/division @ x10
- Input voltage: 6VAC or 9VDC@300mA
- Size: 6.5"W x 3.5"H x 1.4"D • Weight: 1.0 lb.



velleman

Totally Unique

| Part No. | Product No. | 1        | 5        |
|----------|-------------|----------|----------|
| 645280   | VPS10       | \$189.99 | \$184.99 |

\*Increased performance with x10 probe

## Handheld 12MHz Digital Oscilloscope w/ 3½-Digit DMM

- 40MS/s for repetitive signals (10MS/s for single shot events)
- Input impedance: 1MΩ/20pF
- Maximum input voltage: 100Vpeak (AC+DC); 200V peak-peak (AC only)
- Input coupling: DC, AC and GND
- LCD graphics display: 112 x 92 pixels
- Vertical resolution: 8-bit ±1-bit linearity
- Timebase range: 32 steps; 50ns to 1hr./div
- Input sensitivity range: 12 steps; 5mV to 20V/div
- True RMS and dB measurements
- Trigger mode: run, normal, once, and roll modes
- High contrast LCD display
- Recommend 9VDC @ 300mA wall adapter (P/N 133891, pg 241)
- Batteries not included (recommend 1.5V, AA, Zinc Chloride battery)
- Size: 8.0"H x 4.1"W x 1.4"D
- Weight: 1.0 lb.



velleman



355207 (DVM850) can be purchased separately, pg 272

**Includes:** DVM850 DMM & probes

**Multimeter:**

- 6-functions • Data hold function
- 3½-digit w/ backlight, 2000 count
- DC voltage ranges: 200mV to 100V
- AC voltage ranges: 200/600V
- DC current ranges: 200μA to 10A
- Resistance ranges: 200Ω to 2MΩ
- Diode, transistor, and continuity test
- Power supply: 9V battery (included)
- Size: 2.7"W x 1.2"D x 5.4"H

| Part No. | Description                                  | 1        | 5        |
|----------|--|----------|----------|
| 373157   | 12MHz Oscilloscope with DMM (HPS40 + DVM850) | \$373.95 | \$355.30 |

## Handheld 20MHz Digital Oscilloscope & Multimeter

- 4-in-1: digital oscilloscope, DMM, frequency counter & logic analyzer
- **Oscilloscope:** 2-channel input, 5mV-2V/div; DC-20MHz (-3dB); 50ns - 0.5μs/div; 20 MS/s sampling rate
- **Logic analyzer:** 8 inputs; 1.4V threshold level; 35VDC max. input; 50ns min. pulse width
- **Digital multimeter:** 3½-digit (max. 3999 counts); 40 segment analog bargraph; AC/DC voltage 400mV-600V; AC current 40μA-400mA; DC current 400μA-400mA; resistance 400Ω-40MΩ; continuity & diode testing
- **Frequency counter:** 5Hz-20MHz; 5 digit max.; autoranging; AC/DC/DC input coupling; ±10ppm accuracy; 35Vrms/42V-P/60VDC max. input
- Oscilloscope probes: Use P/N 22892 or 216047, pg 278
- Battery required for portable use (see below)
- Size: 10.0"L x 5.0"W x 2.0"H
- Weight: 9.2 lbs. • One-year warranty



162430

**Includes:** Manual, 5VDC @ 3A power supply, power cord, DMM test leads, holster and case  
 ☉ Blue Part No. = Limited Quantity Available

| Part No. | Description             | 1        | 5        |
|----------|-------------------------|----------|----------|
| 162430   | 20MHz digital scope     | \$799.95 | \$764.95 |
| 162974   | Logic probe ☉           | 59.95    | 53.95    |
| 163141   | Rechargeable battery    | 45.95    | 41.49    |
| 162966   | RS-232 cable & software | 26.95    | 24.25    |
| 221946   | Scope probe             | 24.95    | 23.69    |

## 2-Channel USB PC Oscilloscope

The PCSU1000 digital storage oscilloscope uses the power of your PC to visualize electrical signals. Its highly sensitive display resolution, down to 0.15mV, combined with a high bandwidth and a sampling frequency of up to 1GHz are giving this unit all the power you need.



velleman

**Oscilloscope:**

- Time base: 20ns to 100ms per division
- Trigger source: CH1, CH2, EXT or free run
- Input range: 5mV to 2V/division
- Real time sampling frequency: 1.25kHz to 50MHz
- Sampling frequency for repetitive signals: 1GHz

**Spectrum analyzer:**

- Frequency range: 1.2kHz to 25MHz
- FFT resolution: 2048 lines
- FFT input channel: CH1 or CH2

**Transient recorder:**

- Timescale: 20ms/Div to 2000s/Div
- Max record time: 9.4 hour/screen
- Max. number of samples: 100/s
- Min. number of samples: 1 sample/20s

**System requirements:** IBM compatible PC, Windows® 98SE or later, SVGA display card, USB port

**Includes:** PC oscilloscope, 2 x 60MHz scope probes, USB cable, CD software, and manual

| Part No. | Description | 1        | 5        |
|----------|-------------|----------|----------|
| 695017   | PCSU1000    | \$443.79 | \$399.41 |

## Wire Tracer/Tone Generator Kit

- Typical applications: identifies wire pairs, trace LAN and telephone cables, check continuity, test telephone polarity, F type connector for testing 75Ω coaxial video cables
- Transmitter with output cables terminated in modular RJ11 and RJ45 phone connectors
- Injects traceable signal into cables, checks telephone lines, and performs continuity checks
- Non-contact probe audibly identifies selected wire or cable
- Traces wires from source to termination
- Adjustable sensitivity control improves wire identification and eliminates false detection
- Size: Probe - 5.8"L x 1.1"W x 1.1"D; Generator - 4.1"L x 2.6"W x 0.9"D



EXTECH

**Includes:** tone probe and tone generator with RJ11 and RJ45 connectors, adaptor with F type coaxial connector, alligator clips, 4 LR44 batteries, 9V battery and carrying case

| Part No. | Product No. | Price   |
|----------|-------------|---------|
| 692511   | TG30        | \$48.99 |

## 30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 322.



## 50MHz Digital PC-Based Oscilloscope, Spectrum Analyzer and Transient Recorder

- Sampling frequency: 1.25kHz-50MHz real-time; 1GHz repetitive
- Input impedance: 1M $\Omega$ /30pF
- Parallel Port Interface
- Inputs: 2 channels, 1 external trigger input
- Max. input voltage: 100V (AC and DC)
- Power required: 9V to 10V @ 1000mA (recommend P/N 364576, pg 241)



### Oscilloscope:

- Time base: 20ns-100ms per division
- Input sensitivity: 5mV-15V per division with auto step-function
- Recording length: 4096 samples per channel

### Spectrum Analyzer:

- Frequency range: 0 to 25MHz

### Transient Recorder:

- Time scale: 20ms/div-2000s/div
- Max. recording time: 9.4 hours/screen
- Max. number of samples: 100/s

**System requirements:** IBM compatible PC, Windows® 95/98/ME, SVGA card, mouse, printer port, CD-ROM

**Includes:** 2 test leads, PC parallel cable, manual and CD-ROM software

| Part No. | Product No. | 1        | 5        |
|----------|-------------|----------|----------|
| 200184   | PCS500AU    | \$478.95 | \$429.95 |

## 150MHz 2-Channel Digital Oscilloscopes

Color and Monochrome with RS-232/USB/Parallel Interfaces

- Bandwidth (-3dB): 150MHz
- 15 memory settings
- Real-time sample rate: 100MS/s maximum on each channel; equivalent: 25GS/s
- 2 channels with 8-bit vertical resolution
- Record length 125k/CH
- Auto set vertical, horizontal, and trigger level
- Vertical sensitivity: 2mV/div - 5V/div
- Time base range: 1ns/div - 10s/div
- Trigger sensitivity: DC - 25MHz: 0.35div or 3.5mV; 25MHz - 150MHz: 1.5div or 10mV
- Input voltage: 100-240VAC @ 50-60Hz
- Frequency counter: 6 digits  $\pm$ 50ppm; AC coupled, 10Hz - 150MHz
- Size: 12.2"W x 10.0"D x 5.6"H • Weight: 9.3 lbs.
- Two-year warranty



**229358:** Monoch. w/ RS-232/USB/parallel interface  
**229366:** Color with RS-232/USB/parallel interface

**Includes:** BNC cable, power cord & operations manual

| Part No. | Product No. | 1          | 5          |
|----------|-------------|------------|------------|
| 229358   | GDS-820S    | \$1,259.95 | \$1,196.95 |
| 229366   | GDS-820C    | \$1,439.95 | \$1,367.95 |

## 20MHz 2-Channel Analog Oscilloscope

- 6" rectangular screen with internal graticule and scale
- Vertical deflection: 1mV/div to 1V/div (5MHz, 3dB) x 5 gain selected
- Horizontal deflection: 0.1 $\mu$ s/div to 2.0s/div in 1-2-5 sequence, 23 steps
- Max. input voltage: 400V (DC + AC peak)
- Input voltage: 115/230VAC w/ line voltage selector
- ADD function measures sum of two signals
- Size: 12.8"W x 15.7"D x 5.2"H • Weight: 16.8 lbs.



**Includes:** Two (X1/X10) test probes, power cord & manual

| Part No. | Product No. | 1        | 5        |
|----------|-------------|----------|----------|
| 685311   | SK0200      | \$399.95 | \$379.95 |

## 40MHz Multifunction Oscilloscope with Built-In 5MHz Function Generator

### Oscilloscope:

- 6" rect. high res CRT
- Max signal input volt.: 400V (DC and AC peak)
- Input voltage: 100/120/220/240VAC @ 50-60Hz
- Size: 15.7"L x 12.8"W x 5.2"H
- Weight: 26 lbs.
- Two-year manufacture warranty



### Function generator:

- Frequency range: 0.5Hz to 5MHz (6 ranges)
- Output waveforms: sine, triangle, square
- Output impedance: 50 $\Omega$
- Output volt.: 20Vp-p (no load), 10Vp-p (w/50 $\Omega$  load)

| Part No. | Product No. | 1        | 10       |
|----------|-------------|----------|----------|
| 1536886  | SK0404      | \$529.95 | \$499.95 |

## Modular Oscilloscope Probes



- Hook and pointed probes
- **216047/236777:** with IC test ground cover and spring ground contact
- Length: 5' • Maximum input voltage: 600V
- Alligator clip ground wire • BNC male connector

| Part No. | Bandwidth ( $\pm$ 3dB) |        | Impedance (R/C) *  |                    |
|----------|------------------------|--------|--------------------|--------------------|
|          | Attenuation            |        | Attenuation        |                    |
|          | x1                     | x10    | x1                 | x10                |
| 22892    | 6MHz                   | 60MHz  | 1M $\Omega$ /180pF | 10M $\Omega$ /22pF |
| 216047   | 6MHz                   | 100MHz | 1M $\Omega$ /47pF  | 10M $\Omega$ /16pF |
| 236777   | 6MHz                   | 250MHz | 1M $\Omega$ /47pF  | 10M $\Omega$ /14pF |

\* with 20pF oscilloscope input

| Part No. | Cross Ref. No. | 1       | 10      | 50      |
|----------|----------------|---------|---------|---------|
| 22892    | LF101E         | \$24.95 | \$22.46 | \$20.21 |
| 216047   | HF-9100        | 34.95   | 29.95   | 26.95   |
| 236777   | HP-9250        | 45.95   | 43.39   | 37.25   |

## 100MHz 2-Channel Analog Oscilloscope

- 2-channel dual trace
- Auto focusing according to intensity • Delay line
- Weight: 22.8 lbs.
- Two-year warranty
- Size: 16.9"L x 12.6"W x 5.5"H



### Includes:

Two (X1/X10) 100MHz probes, power cord, and operations manual

| Part No. | Product No. | 1        | 5        |
|----------|-------------|----------|----------|
| 121179   | OS5100      | \$999.95 | \$964.95 |

## 100MHz Delayed Sweep Analog Oscilloscope w/ Frequency Counter

2 Channel, 4 Trace

- DC to 100MHz bandwidth
- 6" rectangular CRT with internal graticule
- Auto set, readout cursor, delay sweep, hold-off functions
- Z-axis intensity modulation: DC to 2MHz bandwidth; 30VDC + peak AC max. input voltage
- Vertical deflection factor: 2mV/div to 5V/div
- Horizontal time base A/B deflection: 5ns/div to 0.5s/div in 22 calibrated steps
- Input coupling: AC, GND, DC
- Rise time: 3.5ns or less • Weight: 17.6 lbs.



**Includes:** Two X1/X10 100MHz probes, power cord, and operations manual

| Part No. | Product No. | 1          | 5          |
|----------|-------------|------------|------------|
| 190932   | OS5100RB    | \$1,199.95 | \$1,139.95 |

## 20MHz Dual Trace Oscilloscope with Alt-Mag

- 3.15" x 3.94" CRT with internal graticule and scale
- Vertical amplifier: 5mV/DIV to 5V/DIV in 10 steps (1-2-5 sequence)
- Horizontal sweep: 200ns/Div to 0.5s/Div in 20 steps (1-2-5 sequence)
- External trigger input: impedance - 1M $\Omega$   $\pm$ 5% + 20pF capacitance; maximum input voltage - 160V (DC or AC peak) • Size: 12.5"W x 15.75"D x 5.1"H
- Z axis modulation: 5Vp-p sensitivity; maximum input voltage - 50V or ACp-p • Weight: 16 lbs.
- Input voltage: 120VAC or 220VAC @ 50/60Hz



| Part No. | Prod. No.   | 1        | 5        | 10       |
|----------|-------------|----------|----------|----------|
| 1536801  | PROTEK 6020 | \$425.99 | \$419.99 | \$399.99 |

## 30MHz Dual Trace Oscilloscope w/ LCR Component Tester

- 3.15" x 3.94" CRT with graticule and scale
- Vertical amplifier: 5mV/DIV to 20V/DIV in 12 steps (1-2-5 sequence)
- Horizontal sweep: 100ns/DIV to 0.2s/DIV in 20 steps (1-2-5 sequence)
- Triggering: external trigger input - 1M $\Omega$   $\pm$ 5% impedance; maximum input voltage - 4-p)
- Input voltage: 120VAC or 220VAC @ 50/60Hz
- Size: 12.2"W x 16.45"D x 5.1"H • Weight: 14.3 lbs.



| Part No. | Product No. | 1        | 5        | 10       |
|----------|-------------|----------|----------|----------|
| 1536819  | PROTEK 6030 | \$463.05 | \$453.99 | \$446.99 |



## Commercial Customers

Open an account with us to consolidate your monthly billing and save time.

1-800-831-4242

**veleman**

## 150MHz Modular Oscilloscope Probe

- Working voltage: 600VDC and 600V peak AC
- Length: 3.9'



| Rise Time   | Bandwidth (±3dB) | Impedance (R/C) |
|-------------|------------------|-----------------|
| Attenuation | Attenuation      | Attenuation     |
| x1          | x10              | x1              |
| x10         | x10              | x10             |
| 35ns        | 2.33ns           | 10MHz           |
|             |                  | 150MHz          |
|             |                  | 1MΩ/46pF        |
|             |                  | 10MΩ/11pF       |

| Part No. | Product No. | 1       | 10      | 50      |
|----------|-------------|---------|---------|---------|
| 645589   | PROBE150    | \$39.95 | \$37.95 | \$35.95 |

**PROBE MASTER**

## Oscilloscope Probes

Designed for use with Tektronix and Hewlett Packard oscilloscopes.

- 3 position switch: x1, ref, x10
- Bandwidth @ 3dB: 10MHz (x1); 150MHz (x10)
- Loading: 57pF, 1MΩ (x1); 15pF, 10MΩ (x10)
- Low-resistance gold contacts
- Cord length: 5'



174473

174473: 7-piece kit  
212257: 25-piece kit



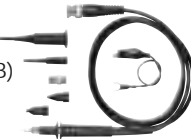
212257

| Part No. | Product No.      | 1        | 10       |
|----------|------------------|----------|----------|
| 174473   | 4901-02 (150MHz) | \$49.95  | \$44.99  |
| 212257   | 4915A (250MHz)   | \$149.95 | \$142.49 |

**Pomona**

## 100MHz Probe Set

- Complete accessory kit included
- Attenuation: x1/x10
- Bandwidth: 15/100MHz (-3dB)
- Rise time: 23.33/3.5ns
- Input resistance: 1/10MΩ
- Capacitance: 64/10.5pF
- Compensation range: 10-60pF • 48" cable



| Part No. | Product No. | Description | 1       | 10      |
|----------|-------------|-------------|---------|---------|
| 156451   | 4550B       | Probe kit   | \$49.49 | \$47.85 |

## 17MHz Logic Probe

- Max input freq.: 17MHz
- Minimum pulse width: 30ns
- Pulse flash time: 500ms
- Audible tones for high and low
- Input impedance: 1MΩ
- Power supply protection: ±20V
- TTL threshold: Lo = 0.8V ±0.2V, Hi = 2.3V ±0.2V
- CMOS threshold: Lo = 30% VCC, Hi = 70% VCC
- Size: 7.7"L x 1.0"W x 0.6"H



| Part No. | Description | 1       | 10      | 25      |
|----------|-------------|---------|---------|---------|
| 149930   | Logic probe | \$29.95 | \$26.99 | \$24.29 |

**Over 99% of Our Catalog Products Are In Stock**

Place your order by 6PM EST for same business-day shipment.

## Logic Pulser

- Compatible with TTL, DTL and CMOS ICs
- 1MΩ sync input impedance
- "One shot" or continuous 5Hz pulse train
- Pulse repetition rate: 0.5pps/400pps
- Pulse width output at 100mA load: 10μs
- Pulse mode output current: 10mA
- Square wave current output: 5mA
- Size: 7.8"L x 1.0"W x 0.6"H



| Part No. | Description  | 1       | 10      | 25      |
|----------|--------------|---------|---------|---------|
| 24601    | Logic pulser | \$21.95 | \$19.76 | \$17.78 |

## 100MHz Logic Analyzer USB Interface

DigiView™ is a new 18-channel, 100MHz logic analyzer with professional quality and high portability. DigiView™ uses a deep-capture buffer and real time hardware compression to achieve long period captures without reducing resolution.

- 18-channels, 100MHz
- USB interface and power source for portability
- Real time hardware compression
- Compression ratio up to 256,000:1
- Trigger on rising, falling, or transition of any channel
- Pre-trigger and post-trigger data capture
- Captures up to 5 minutes of data @ 10ns resolution



| Part No. | Description           | 1        | 5        |
|----------|-----------------------|----------|----------|
| 256866   | USB logic analyzer    | \$498.95 | \$474.09 |
| 256874   | Cable replacement     | \$29.95  | \$24.80  |
| 256882   | Grabber clip set (10) | \$29.95  | \$28.49  |

## METEX® 4-in-1 Universal System

With Function Generator, Universal Counter, DC Power Supply & Digital Multimeter

- Function generator** capable of generating seven forms of waves (sine, square, triangle, skewed sine, ramp, pulse, and TTL square wave) in seven frequency ranges from 0.2Hz to 2MHz
- Universal counter** capable of measuring frequency ranges from 5Hz to 1.3GHz
- DC power supply** capable of generating 5V @ 2A, 15V @ 1A fixed and 0 to 30V @ 0 to 2A variable
- Digital multimeter** with ranges of: DC voltage (400mV to 100V), AC voltage (400mV to 750V), DC/AC current (40mA to 20A), resistance (400Ω to 40MΩ), capacitance (4nF to 400μF) and forward resistance of a semiconductor junction in kΩ
- Size: 14.5"W x 14.0"D x 7.0"H
- Weight: 37 lbs. • One-year warranty



**Less Bench Space – Great Convenience**

Includes: Manual, cables and software

| Part No. | Product No. | 1        | 5        |
|----------|-------------|----------|----------|
| 160864   | MS9150      | \$564.95 | \$514.95 |

## Protek 3GHz Universal Counter

- High accuracy frequency measurements up to 3GHz
- Measures frequency, time interval, ratio, and totalize
- Large bright 8-digit LED display with gate time and function indicators
- Frequency measurement: input A DC coupled 0.1Hz to 10MHz, AC coupled 10Hz to 100MHz with gate times of 0.01s to 10s in 4 decades; input B DC coupled 0.1Hz to 10MHz, AC coupled 10Hz to 100MHz; Freq C 100MHz to 3GHz with gate times of 0.0128s, 0.128s, 1.28s, and 12.8s
- Input voltage: 100/120/220/240V @ 50-60Hz
- Power consumption: 20W
- Size: 10.0"W x 11.0"D x 4.0"H • Weight: 5.3 lbs.



**NEW**

| Part No. | Product No.         | 1        | 5        |
|----------|---------------------|----------|----------|
| 1581206  | B3110               | \$427.95 | \$417.25 |
| 1581193  | PP80 (scope probes) | \$19.95  | \$18.95  |

## 1.5GHz Frequency Counter

2 Channels

- Input voltage: 115/230VAC @ 50-60Hz (switchable)
- Gate time: 0.01s, 0.1s, 1s, 10s
- 9-digit green LED display
- Frequency range: 0.1Hz to 1.5GHz (A input); 50MHz to 1.5GHz (B input)
- Resolution: 0.1Hz to 10Hz (A input); 0.1Hz to 100kHz (B input)
- Frequency, period, totalize, RPM
- Size: 10.3"L x 10.0"W x 3.2"H • Weight: 5.3 lbs. • One-year warranty



**EZ DIGITAL**

Includes: Fuse, manual and BNC cable

| Part No. | Product No. | 1        | 5        |
|----------|-------------|----------|----------|
| 55790    | FC-7150     | \$284.95 | \$259.95 |

## 2MHz & 10MHz Sweep Function Generators w/ Frequency Counter

Function Generator

**METEX®**

- Wave forms: sine, square, triangle, skewed, ramp, pulse & TTL level square
- Frequency: 2Hz to 2MHz in 7 ranges (192671); 1Hz to 10MHz (221911)
- Output amplitude: 2 to 20Vpp at open load; 1 to 10Vpp at 50Ω load
- Output impedance: 50Ω ±10%
- Offset variable range (max.): ±10VDC at open load
- Frequency sweep time: 20ms to 2s



221911

Frequency Counter

- Measuring range: channel A: 1Hz to 20MHz; channel B: 20MHz to 2.7GHz
- Input sensitivity: channel A: 20mVRMS sine wave or 100mVp-p; channel B: 40mVRMS for 20MHz to 1.3GHz; 70mVRMS for 1.3GHz to 2.7GHz
- Maximum input voltage: channel A: 35Vp-p; channel B: 3Vp-p
- Input impedance: channel A, 1MΩ; channel B, 50Ω
- Data logging and graphic software
- Size: 11.0"L x 8.2"W x 3.7"H • Weight: 13.4 lbs.

Includes: Coax and power cable, manual, serial cable and software

| Part No. | Description  | 1        | 5        |
|----------|--------------|----------|----------|
| 192671   | 2MHz/2.7GHz  | \$319.95 | \$264.09 |
| 221911   | 10MHz/2.7GHz | \$417.95 | \$403.34 |



## RF Signal Generator

- Frequency accuracy:  $\pm 3\%$
- RF output: 100mVrms (up to 35MHz)
- Output control: high-low switch, fine adjustment
- Modulation: internal - 1kHz; external - 50Hz to 20kHz at less than 1Vrms
- Audio output: 1kHz min., 1Vrms (fixed)
- Input port for 1MHz to 15MHz crystal in type HC6/u holder (crystal not included)
- Power requirements: 110V
- Size: 5.9"H x 9.8"W x 5.1"D • Weight: 7.2 lbs.



| Part No. | Product No. | Price    |
|----------|-------------|----------|
| 684431   | SG-4160B    | \$219.95 |

## 3MHz Function Generator

- Square, triangle, and sine waves; TTL and CMOS pulse outputs
- Frequency: 0.3Hz to 3MHz in 7 ranges
- CMOS output level: 4Vpp,  $\pm 1$ Vpp to 14.5Vpp;  $\pm 0.5$ Vpp adjustable
- Output impedance:  $50\Omega \pm 10\%$
- DC offset:  $< -5$ V to  $> +5$ V into  $50\Omega$  load
- Variable controlled frequency input
- Variable DC offset control
- Signal polarity invert button
- Size: 9.6"W x 11.5"D x 3.7"H • Weight: 4.4 lbs.
- Size: 9.6"W x 11.5"D x 3.7"H • Duty cycle control

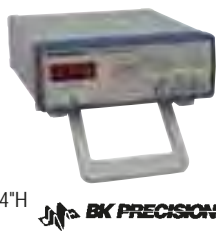


| Part No. | Product No. | 1        | 5        |
|----------|-------------|----------|----------|
| 222594   | FG2C        | \$239.95 | \$234.95 |

Blue Part No. = Limited Quantity Available

## 5MHz Function Generator

- Waveforms: sine, square, triangle and ramp
- 0.5 to 5MHz
- 100% DC offset
- Variable duty cycle
- Output impedance:  $50\Omega$
- Coarse and fine tuning
- Two-year warranty
- Size: 10.4"W x 11.7"D x 3.4"H
- Weight: 6.2 lbs.



| Part No. | Prod. No. | Description | 1        | 5        |
|----------|-----------|-------------|----------|----------|
| 160469   | BK4011A   | 0.5 to 5MHz | \$314.95 | \$312.45 |



## 30-Watt Digital Benchtop Power Supply

- Single output, adjustable from 1.5VDC to 30VDC
- Compact design
- Input voltage: 85-264VAC @ 47-63Hz
- Output terminals
- Large digit backlit display
- Fixed current output
- Overload and short-circuit protection
- Size: 5.5"L x 5.2"W x 1.6"H • Weight: 1.2 lbs.



| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 301971   | PSU130      | \$79.95 | \$75.95 |

## 30 & 54-Watt Digital Benchtop Power Supplies

- Single output
- Adjustable voltage output: 645600=0-30V; 681221=0-18V
- Adjustable current output: 645600=0-1A; 681221=0-3A
- Max. display resolution: 0.1V/10mA
- Color coded banana plug output jacks
- Input voltage: 120VAC @ 60Hz
- Size: 9.4"H x 4.3"W x 6.1"D
- Weight: 645600: 4.4 lbs.; 681221: 6.6 lbs.



| Part No. | Product No.  | 1        | 5        |
|----------|--------------|----------|----------|
| 645600   | 382200 (30W) | \$120.89 | \$113.65 |
| 681221   | 382202 (54W) | 123.49   | 117.35   |

Detailed specifications for Function Generators  
[www.Jameco.com/Prod/FunctionGen](http://www.Jameco.com/Prod/FunctionGen)

## 90-Watt Digital DC Power Supply



30V @ 3A

- Input voltage: 110/220VAC @ 50-60Hz
- Resolution: 1%  $\pm 1$  digit accuracy
- Constant voltage and current operation
- Size: 5.1"W x 10.1"D x 5.9"H



| Part No. | Description | 1        | 5        |
|----------|-------------|----------|----------|
| 489184   | DRP-303D    | \$189.95 | \$179.95 |

## 150-Watt Digital Power Supply

30VDC @ 5A

- Adjustable voltage/current outputs
- 2A @ 250V fuse
- Constant voltage and current operation
- Dual digital display
- LCD displays for both current and voltage
- Coarse/fine adjustment knobs for current and voltage
- Input voltage: 110/220VAC @ 50-60Hz (switchable)
- Color-coded terminals for positive, negative and ground connections
- Size: 5.4"W x 10.7"D x 6.0"H
- Weight: 13.8 lbs. • One-year warranty



| Part No. | Description | 1        | 10       | 25       |
|----------|-------------|----------|----------|----------|
| 153243   | 30VDC @ 5A  | \$234.95 | \$211.49 | \$190.35 |

## 200W Programmable Switching Power Supplies with PC Interface

- Voltage regulation: 10mV load;  $\leq 0.05\%$  line
- Current regulation:  $\leq 5$ mA load;  $\leq 0.05\%$  line
- Output ON/OFF control
- Ripple:  $\leq 20$ mVrms;  $\leq 10$ mA rms
- Over-voltage/over-current/over-power/over-temperature protection
- Standard RS-232C 9-pin female interface
- Input voltage: 115/230VAC @ 50-60Hz
- Size: 8.9"W x 12.0"D x 3.9"H
- Weight: 8.8 lbs. • Two-year warranty



Includes: Power cord, operations manual & test leads

| Part No. | Product No. | Description    | 1        | 5        |
|----------|-------------|----------------|----------|----------|
| 229323   | PSP-2010    | 0-20V @ 0-10A  | \$349.95 | \$332.45 |
| 229294   | PSP-603     | 0-60V @ 0-3.5A | 349.95   | 262.46   |

## 100-Watt Triple Output Digital and Analog DC Power Supplies

30VDC @ 3A

- Triple output with fixed 5VDC @ 0.5A, 12VDC @ 0.5A
- Adjustable 0 - 30V voltage and 0 - 3A current outputs
- Displays of both voltage and current
- Constant voltage or current
- Current limiting indicator
- Overload and short circuit protection
- Binding post terminals for variable supply
- Input voltage: 110/220VAC @ 50-60Hz (switchable)
- Size: 9.5"L x 6.0"W x 5.6"H • Weight: 10.0 lbs.



| Part No. | Description | 1        | 10       |
|----------|-------------|----------|----------|
| 197991   | Digital DC  | \$198.95 | \$178.95 |
| 197982   | Analog DC   | 168.95   | 151.95   |



## 2MHz & 3MHz Function Generators w/ Frequency Counter

### Function Generator

- Wave forms: sine, triangle, square, TTL, and CMOS output; 229260 has ramp
- Frequency ranges: 229251: 0.2Hz - 2MHz in 7 ranges; 229260: 0.3Hz - 3MHz in 7 ranges
- Output amplitude:  $> 10$ Vp-p into  $50\Omega$  load
- Output impedance:  $50\Omega \pm 10\%$
- DC offset range:  $< -5$ V to  $> +5$ V into  $50\Omega$  load
- Voltage controlled frequency function
- Variable DC offset control



229251



229260

### Frequency Counter

- Input voltage: 115/230VAC @ 50-60Hz
- Weight: 4.4 lbs. • Two-year warranty
- 229251: • 4-digit LCD display
- Ranges: 0.2Hz to 2MHz internal only; with resolution of 0.1Hz to 1kHz • Size: 9.1"W x 11.0"D x 3.7"H
- 229260: • 6-digit LCD display
- Ranges: INT/EXT switch, 0.3Hz to 3MHz internal and 5Hz to 150MHz external; resolution of 10nHz to 0.1Hz
- Size: 9.9"W x 11.5"D x 3.6"H

Includes: Power cord, operations manual and leads

| Part No. | Product No. | Description | 1        | 5        |
|----------|-------------|-------------|----------|----------|
| 229251   | GFG-8020H   | 2MHz        | \$259.95 | \$246.95 |
| 229260   | GFG-8216A   | 3MHz        | 279.95   | 251.99   |

## 3MHz Function Generator with Positive and Negative Pulses

- 6 waveforms: sine, square, triangle, ramp, positive pulse and negative pulse
- Input voltage: 110VAC
- Output impedance:  $50\Omega \pm 2\%$
- Knob selector switches for waveforms and frequency ranges
- Frequency range: 0.5Hz to 3MHz in 6 ranges via rotary switch
- Size: 10.5"W x 11.2"D x 3.9"H • Weight: 6.6 lbs.



| Part No. | Product No. | 1        | 5        |
|----------|-------------|----------|----------|
| 685329   | SK3000      | \$209.79 | \$199.35 |

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.





## 45W to 600W Benchtop Power Supplies

- Voltage and current adjustable
- Current restricted and short-circuit protection
- Input voltage: 115/230  $\pm$ 10% VAC

- Analog display power supplies**
- Accuracy: 2.5%
- Digital display power supplies**
- Voltage accuracy: 1% + 2 digits
  - Current accuracy: 1.5% + 2 digits

**Quantity SAVE**



| Single Output |             | 301920        | 207706    | 207618                    | 211692            |            |                                 |
|---------------|-------------|---------------|-----------|---------------------------|-------------------|------------|---------------------------------|
| Part No.      | Product No. | Displays      | Power (W) | Voltage (VDC)/Current (A) | Size (W"xH"xD")   | Wt. (lbs.) | 1 10                            |
| 301920        | HY1503C     | 2-Analog      | 45        | 15/3                      | 3.8 x 6.3 x 9.1   | 9          | \$99.95 \$94.95                 |
| 301866        | HY3003D     | 2-Digital LCD | 90        | 30/3                      | 5.4 x 6.2 x 11.5  | 10         | <del>179.95</del> <b>134.96</b> |
| 207618        | HY3005C     | 2-Analog      | 150       | 30/5                      | 5.4 x 6.2 x 11.5  | 14         | 159.95 144.95                   |
| 207626        | HY3010C     | 2-Analog      | 300       | 30/10                     | 10.4 x 6.5 x 14.4 | 31         | <del>299.95</del> <b>224.96</b> |
| 207693        | HY5002      | 2-Digital LED | 100       | 50/2                      | 5.4 x 6.2 x 11.5  | 13         | <del>189.95</del> <b>142.46</b> |
| 301938        | HY3005      | 2-Digital LED | 315       | 0-30/5                    | 10.5 x 6.5 x 14.3 | 10         | 199.95 189.95                   |
| 301911        | HY3005D     | 2-Digital LCD | 150       | 30/5                      | 5.4 x 6.2 x 11.5  | 13         | <del>224.95</del> <b>213.70</b> |
| 207706        | HY5003      | 2-Digital LED | 150       | 50/3                      | 5.4 x 6.2 x 11.5  | 13         | <del>249.95</del> <b>187.46</b> |
| 207600        | HY5005      | 2-Digital LED | 250       | 50/5                      | 10.4 x 6.5 x 14.4 | 17         | 299.95 239.96                   |
| 207634        | HY3010      | 2-Digital LED | 300       | 30/10                     | 10.4 x 6.5 x 14.4 | 31         | 399.95 359.95                   |
| 207686        | HY3020      | 2-Digital LED | 600       | 30/20                     | 10.4 x 6.5 x 14.4 | 42         | 499.95 449.95                   |

### Multiple Output

| Part No. | Product No. | Displays      | Power (W) | Voltage (VDC)/Current (A) | Size (W"xH"xD")   | Wt. (lbs.) | 1 10                            |
|----------|-------------|---------------|-----------|---------------------------|-------------------|------------|---------------------------------|
| 211722   | HY3002-2    | 2-Digital LED | 120       | 0-30/2; 0-30/2            | 10.4 x 6.5 x 14.4 | 23         | <del>249.95</del> <b>194.00</b> |
| 211705   | HY3002D-2   | 4-Digital LCD | 120       | 0-30/2; 0-30/2            | 10.4 x 6.5 x 14.4 | 23         | <del>269.95</del> <b>202.46</b> |
| 211692   | HY3003D-2   | 4-Digital LCD | 180       | 0-30/3; 0-30/3            | 10.4 x 6.5 x 14.4 | 28         | 289.95 259.95                   |
| 211730   | HY3003-2    | 2-Digital LED | 180       | 0-30/3; 0-30/3            | 10.4 x 6.5 x 14.4 | 28         | <del>299.95</del> <b>224.96</b> |
| 211713   | HY3003-3    | 2-Digital LED | 195       | 0-30/3; 0-30/3; 5/3       | 10.4 x 6.5 x 14.4 | 29         | 319.95 287.95                   |
| 211684   | HY3003D-3   | 4-Digital LCD | 195       | 0-30/3; 0-30/3; 5/3       | 10.4 x 6.5 x 14.4 | 29         | 329.95 296.95                   |
| 301947   | HY3005D     | 4-Digital LCD | 300       | 0-30/5; 0-30/5            | 10.4 x 6.5 x 14.4 | 26.5       | 349.95 332.45                   |
| 301955   | HY3005D-3   | 4-Digital LCD | 315       | 0-30/5; 0-30/5; 5/3       | 10.4 x 6.5 x 14.4 | 29         | 369.95 351.45                   |
| 301962   | HY5003-2    | 2-Digital LED | 300       | 0-50/3; 0-50/3            | 10.4 x 6.5 x 14.4 | 26         | <del>339.95</del> <b>254.96</b> |

## 150-Watt Power Supply

### 50VDC @ 3A

- Adjustable voltage/current outputs
- Constant voltage & current operation
- Input voltage: 110VAC @ 60Hz
- 3A @ 115V fuse
- Color-coded terminals for ground, positive and negative terminals
- Color-coded adjustment knobs for voltage, current and fine adjustment
- One-year warranty

| Part No. | Description | Color     | Size (L"xW"xH")  | Wt. (lbs.) | 1 10 25                    |
|----------|-------------|-----------|------------------|------------|----------------------------|
| 163723   | 50VDC @ 3A  | Dark gray | 9.0 x 4.75 x 7.5 | 12.3       | \$143.95 \$136.75 \$129.89 |



## 150 to 250-Watt Analog Power Supplies

- Color-coded adjustment knob and output terminals for voltage
- Built-in fan
- Voltage and current panel meter
- Constant voltage and current operation

### 175265: 15VDC @ 10A, 150-Watt

- Output current: 15A max.
- Input voltage: 110VAC @ 60Hz
- Over-voltage, over-current, short-circuit protection
- Cigarette lighter plug for current output
- LED indicator for power and warning

### 175257: 15VDC @ 15A, 225-Watt

- Output current: 25A max. (22A continuous @ 13.8VDC)
- Over-voltage protection @ 16.5V
- Input voltage: 110VAC/220VAC @ 47-63Hz (switchable)
- Short-circuit protection @ 27.5A
- LED indicator for power and warning
- Cigarette lighter plug for current output

### 175249: 50VDC @ 5A, 250-Watt

- 5A @ 250V fuse
- Input voltage: 110VAC @ 50-60Hz
- Isolated ground

| Part No. | Cross Ref. No. | Output Voltage | Size (L" x W" x H") | Wt. (lbs.) | 1 10 25                    |
|----------|----------------|----------------|---------------------|------------|----------------------------|
| 175265   | DPS150A        | 2-15VDC        | 5.7 x 6.2 x 4.0     | 12.0       | \$149.95 \$134.95 \$129.95 |
| 175257   | SPS250A        | 9-15VDC        | 5.6 x 6.2 x 4.0     | 3.8        | 159.95 143.95 129.56       |
| 175249   | DPS5050        | 0-50VDC        | 4.9 x 7.7 x 6.7     | 13.8       | 189.95 179.95 171.49       |



## ZapChecker (RF Field Strength Meter)

Detect and measure all those weak radio signals on HF, VHF, UHF or Microwave frequencies. Ideal for discovering wireless bugs and covert cameras, the ZAPCHECKER also works well to help install wireless security systems and wireless computer networks by checking where the strongest signal is. Measure electromagnetic radiation and emissions from microwave ovens, cell phones, wireless phones, and electronic equipment. ZC-300 (667817) includes a log periodic antenna for that extra boost in locating and measuring signals and a BNC connector if you choose to use other antennas.



667796

**Totally Unique**

- Sensitivity control: 20dB, (10 to 1) signal control range
- Sensitivity: (667796) 70 $\mu$ V; (667817) 45 $\mu$ V
- Detection modes: LINEAR – for far-field detection of weakest signals: 10dB for ZC-185 and 12dB for ZC-300
- Dynamic range: LOG – for near-field localization without overloading: 60dB
- Dynamic range MID – for intermediate detection and localization: 25dB dynamic range
- Analog mode: for detecting and measuring continuously transmitted signals
- Digital mode: for detecting, identifying, and measuring digitally pulsed signals
- Silent vibrator: intensity modulated, switch-enabled vibrator for mid to high level signals
- Analog meter display for visual indication of changes and levels of RF signals
- LED display indicators
- Approximately 80 hours of battery life (2 x AA batteries)
- Size: 2.1"W x 1.3"D x 5.0"H

| Part No. | Description | Frequency | 1 10              |
|----------|-------------|-----------|-------------------|
| 667796   | ZC-185      | 3MHz-5GHz | \$158.95 \$150.95 |
| 667817   | ZC-300      | 1MHz-8GHz | 398.95 370.45     |

## Mini Thermo-Anemometer

Waterproof, pocket size with air velocity, temperature and windchill, all in one. Ideal for checking blowers, fans, exhaust hoods and balancing AC/HT ducts.

- 0°F to 122°F (-18°C to 50°C)
- Measures wind speed in ft/min., MPH, m/s, km/h, knots and Beaufort force
- Large dual display for air velocity and temperature
- Water resistant housing floats and drop tested to 6'

**EXTECH**



**Includes:** CR2032 lithium battery and lanyard

| Part No. | Product No. | 1 5             |
|----------|-------------|-----------------|
| 218085   | 45118       | \$88.95 \$84.49 |

## Jameco's Got The Docs

We offer free technical documents for most of the products we carry. Find them easily on the product specification pages at [www.Jameco.com](http://www.Jameco.com)

## Handheld HDTV Pattern Generator

B&K Precision's model 1253 is an affordable HDTV test pattern generator that delivers accurate test patterns for the testing of the most common HDTV displays including Plasma, LCD, TFT, CRT, DLP, GLV and OLED digital display products. The 1253 can display from its HDTV Component (YPbPr) outputs fourteen of the most useful patterns for twelve of the most commonly used video formats (S-Video output patterns provide luminance only). The 1253 displays the most popular formats including 1920 x 1080 30i, 1280 x 720 60p, 704 x 480 60p, NTSC, PAL & SECAM. A unique feature of the 1253 is the Overscan DVD Aspect Ratio pattern. This feature covers the most commonly use aspect ratios used for all movies recorded to DVD media.

- Patterns: SMPTE bars, PLUGE, needle, color bars, cross hatch, DVD Aspect Ratio, raster, multiburst, focus, staircase, window, checker, overscan
- Y output: 1Vp-p into 75Ω
- S-video (SVHS) 5-pin DIN connector
- Power source: 9V battery
- Red LED power indicator
- Size: 5.6"L x 3.1"W x 1.1"H

| Part No. | Description            | Price    |
|----------|------------------------|----------|
| 681504   | HDTV pattern generator | \$595.05 |

## Mini IR Thermometer

- Economical mini-size design for convenience
- Automatic data hold when measure button is released
- Maximum or minimum hold
- Field of view: 1:1
- Temperature range: -31°F to 446°F (-35°C to 230°C)
- Lock feature for continuous scanning
- Maximum resolution: 0.1°F/°C
- Fixed emissivity covers 90% of surface applications
- Auto power off
- Size: 3.0"L x 1.6"W x 0.7"D



**NEW**

| Part No. | Product No. | 1       | 5       |
|----------|-------------|---------|---------|
| 1537299  | IR100       | \$29.25 | \$28.49 |

## Mini Analog Multimeter

- Easy to read analog display
- 5% full scale accuracy
- Battery test on 9V and 1.5V batteries
- 6 functions including battery and decibel test
- DC current range: 0.5mA to 250mA
- DC voltage range: 2.5V to 300V
- AC voltage range: 10V to 300V
- Resistance range: 10KΩ to 1MΩ
- Size: 6.1"H x 3.5"W x 1.9"D
- Weight: 0.5 lbs.



**NEW**

**Includes:** test leads protective holster and 1.5V AA battery

| Part No. | Product No. | 1       | 5       |
|----------|-------------|---------|---------|
| 1536843  | 38073       | \$14.59 | \$14.24 |

## Non-Contact AC Voltage & Current Detector

**EXTECH**



**NEW**

- The only 2-in-1 non-contact AC voltage and current detector
- Non-contact AC current detection range: 200mA to 1000A
- Non-contact AC voltage detection range: 12V to 600VAC
- Current sensor detects current flow through shielded wires, conduit, & metal circuit breakers/junction boxes
- Sensitivity adjustments to increase or decrease sensor trigger threshold
- Audible & visible sense detect indicators
- Detects current flow of 400mA @ 0.2" distance, longer distances for larger current flows
- Size: 7.6"L x 1.2"W x 0.9"D • Weight: 0.2 lbs.

**Includes:** four LR44 button type batteries and clip

| Part No. | Product No. | 1       | 5       |
|----------|-------------|---------|---------|
| 1537192  | DVA30       | \$38.99 | \$37.99 |

## Remote & Local Continuity Tester

**EXTECH**



**NEW**

- Local continuity checking is accomplished by a flashing LED and pulsating beeper
- Remote continuity is accomplished with the use of a remote probe, it does not tie up two people when identifying and labeling wires and cables
- Two lead, bi-color led (red/green) is used on the remote probe that allows a single user to identify up to three wires or cables at a time
- Drives a 20mA DC current pulse through wires or cables under test for polarity identification

| Part No. | Product No. | 1       | 5       |
|----------|-------------|---------|---------|
| 1537272  | CT20        | \$29.25 | \$28.49 |

## Pen DMM with Non-Contact Voltage Detector

**EXTECH**



**NEW**

- Large 2,000 count LCD display
- Non-contact voltage detection with visible & audible alarm
- Retractable tip for safe storage
- Auto ranging with data hold, range hold, & maximum hold • Auto power off
- Overload & low battery indication
- Non-contact voltage range: 50VAC to 600VAC
- DC voltage ranges: 200mV to 600V with 0.1mV resolution
- AC voltage ranges: 200mV to 600V with 0.1mV resolution
- Resistance ranges: 200Ω to 20MΩ with 0.1Ω resolution • Diode & continuity test
- Size: 8.2"L x 1.5"W x 1.1"D • Weight: 0.3 lbs.

**Includes:** test leads with alligator clips, two 1.5V AAA batteries, and carrying case

| Part No. | Product No. | 1       | 5       |
|----------|-------------|---------|---------|
| 1537184  | 381676      | \$38.99 | \$37.99 |

## Moisture Meter

**EXTECH**

- Adjustable pins for wood and other porous building materials
- Moisture content: 0 - 100
- Temp. range: 32°F to 122°F (0°C to 50°C)
- Unique dual LCD displays wall moisture and air temp. simultaneously
- Moisture content displayed on a relative scale
- Multi-position pins w/ safety storage for replaceable pins
- Data hold to freeze reading on display
- Low battery indication
- Selectable slide switch
- Calibration adjustment for better repeatability
- °C/°F switchable • Size: 7.6"L x 1.8"W x 0.8"D

**NEW**



**Includes:** 2 AAA batteries, 10 spare pins & pouch case

| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 1581134  | MO100       | \$59.95 | \$57.45 |

## Digital Psychrometer

**EXTECH**

### External Probe Temperature Measurements for Differential

Unique sensor cap design twists to closed position for protection during storage.

- Simultaneous display of %RH, temp. and dew point or web bulb or probe temp.
- Temp. ranges: (internal) -4°F to 122°F (-20°C to 50°C); (external) -4°F to 158°F (-20°C to 70°C)
- Temp. ranges: -90.4°F to 122°F (-68°C to 49.9°C)
- Wet bulb measurement without slinging
- Calculates T1-T2 differential (air temp. minus external probe temp. using optional probe)
- Data hold freezes current reading on display
- Switchable °F/°C temp. reading • Auto power off
- Min./max. readings • Size: 7.0"L x 1.9"W x 1.0"D

**NEW**



| Part No. | Product No.                                   | 1       | 10      |
|----------|---|---------|---------|
| 1581142  | RH300   | \$89.95 | \$86.59 |
| 1581151  | TP890 (optional thermistor temperature probe) | 15.95   | 14.99   |

## Combustible Gas Leak Detector

**EXTECH**

- Detects combustible gas - liquefied natural gas (LNG) and liquefied propane gas (LPG) from 500 to 6500ppm
- Convenient compact portable size
- Highly sensitive detection circuitry
- Audible and visual alarm
- LED indicators for gas leakage & static absorption
- Continuous operation up to 4 hours
- One switch operation
- Size: 6.5"L x 0.8"Dia.

**NEW**



**Includes:** 2 AAA batteries

| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 1581169  | FG100       | \$59.95 | \$58.95 |

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you'd like to see in future catalogs.



# Temperature/Environmental Meters & Cable Testers

## Digital Light Meter

- Measures in Lux and footcandle ranges
- Range: Lux – 0 - 50,000 Lux (3 ranges); footcandle – 0 - 5,000 Fc (3 ranges)
- Analog output connectors for external recording
- Separate light sensor for optimum location sampling
- 0.5" digit height
- Dimensions (sensor probe): 3.2"L x 2.2"W x 0.5"H
- Weight: 0.9 lbs.
- One-year warranty



| Part No. | Description         | 1       | 10      |
|----------|---------------------|---------|---------|
| 131764   | Digital light meter | \$99.95 | \$89.95 |

## Digital Sound Level Meter

- Type 2 meter with manual data store; recalls up to 99 readings
- High accuracy
- AC/DC analog output
- Wide decibel range: 40dB to 130dB
- Max/min recording with elapsed time stamp
- A & C weighing
- Large 2000 count LCD display with analog bargraph
- 0.5" condenser microphone
- Size: 10.3"H x 2.6"W x 1.0"D



| Part No. | Product No. | 1       | 5       |
|----------|-------------|---------|---------|
| 645642   | 407730      | \$75.15 | \$71.29 |

## Pocket IR Thermometer with Laser Pointer

The pocket IR thermometer measures the surface temperature of objects which are difficult to reach or unsafe to contact. It also measures hot spots in electrical panels and equipment. In-process temperature measurements. With a 6:1 ratio field of view and built-in laser for improved aim, it covers 90% of surface applications for temperature measurement.

- Temperature range: -58°F to 518°F (-50°C to 270°C)
- Built-in laser pointer to improve aim
- F/C switchable
- Fixed emissivity (0.95) covers 90% of surface applications
- Visual overrange indicator
- 6:1 field of view
- Data hold and max hold
- Pocket size meter
- Size: 3.8"L x 2.0"W x 0.9"D

Includes: 2 AA batteries

| Part No. | Description           | 1       | 5       |
|----------|-----------------------|---------|---------|
| 219361   | Pocket IR thermometer | \$59.95 | \$56.99 |



Best Seller!



Lower \$\$\$

## Temperature/Humidity Meter with Min/Max Memory

- Displays (%) relative humidity and temperature (°C/°F) simultaneously
- Min./Max. memory on both relative humidity and temperature with reset function
- Humidity range: 10% to 99%
- 1" high readout

Includes: Built-in tilt stand, AAA battery, and wall mounting bracket

| Part No. | Product No. | Temperature Range             | Size (L" x W" x Thick") | 1       | 10      | 25      |
|----------|-------------|-------------------------------|-------------------------|---------|---------|---------|
| 198045   | 445703      | 14°F to 140°F (-10°C to 60°C) | 4.3 x 3.9 x 0.8         | \$36.95 | \$35.09 | \$33.35 |



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Our enhanced website offers over 65,000 new products.  
Find products quickly and order them easily.

## Non-Contact Infrared Thermometer w/ Laser Pointer

- Built-in laser pointer identifies target area
- Field of view: 6:1 (6" distance measures 1" target)
- Automatic data hold when trigger released and auto power off
- Fixed 0.95 emissivity covers 90% of surface applications
- Temperature range: 0°F to 600°F (-20°C to 320°C)
- Basic accuracy: ±2% of reading
- 2000-count backlit LCD display
- Audible and visible over-range indicators
- Size: 8.3"L x 3.5"W x 1.5"D



Includes: 9V battery

| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 211588   | 42529       | \$88.95 | \$84.50 |

## 30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange.  
Details on page 322.

## RS-232 Mini-Tester with Status LEDs

Tests any RS-232 (DB25) interface and helps to identify equipment that has failed. Seven bicolor LEDs indicate the status of TD, RD, RTS, CTS, DSR, CD and DTR. LEDs indicate positive (red) and negative (green). No extra power is required. Connectors: male to female DB25.



| Part No. | Description | 1       | 10      | 100    |
|----------|-------------|---------|---------|--------|
| 26729    | Mini-tester | \$11.95 | \$10.76 | \$9.68 |

## Miniature RS-232 Breakout Box for Quick Design Changes

Design new interfaces or modify old ones quickly and easily. Completely self-contained.

Connectors: male to female DB25.

Includes: 25 each 22 AWG wire jumpers and machine tool sockets



| Part No. | Description  | 1      | 10     | 100    |
|----------|--------------|--------|--------|--------|
| 11181    | Breakout box | \$8.95 | \$7.95 | \$6.95 |

## RS-232 Loopback Tester

The tester acts as a data verifier by sending data back to the transmission device. Used for diagnostic testing of RS-232 circuits. 4 LEDs monitor lines 2 to 3, 4 to 5, 6 to 20, and 15 to 17. Connectors: male to female DB25.



| Part No. | Description     | 1      | 10     | 100    |
|----------|-----------------|--------|--------|--------|
| 22728    | Loopback tester | \$6.95 | \$5.95 | \$4.45 |

## Flexible Multilink RS-232 Tester & Breakout Box

Visually indicates the status of lines 2, 3, 4, 5, 6, 8, 20, and 22 on the DTE and DCE sides. Provides signal status at a glance.

Complete cable "breakout" and reconfiguration. Connectors: DB25 male & DB25 female.

- Cable length: 4"
- Size: 3.5"L x 3.3"W x 1.0"H

Includes: Handy carrying case, 10 jumper wires and a device wiring chart

| Part No. | Description         | 1       | 10      | 25      |
|----------|---------------------|---------|---------|---------|
| 25945    | Tester/breakout box | \$22.95 | \$19.95 | \$17.95 |

## How to Test Almost Everything Electronic

TAB Publishing Filled with easy-to-follow instructions on how to troubleshoot all types of electronic systems. Learn the many uses of electronic tools, test equipment and troubleshooting techniques.

- Size: 7.4" x 9.3"
- Weight: 1.3 lbs.

| Part No. | Description            | 1       | 10      |
|----------|------------------------|---------|---------|
| 126199   | How to Test Everything | \$17.95 | \$16.15 |

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

Color Code Legend  
New Sale Lower\$ QtySave

Order 24/7 Toll Free 1-800-831-4242

283



## RS-232 Line Status Tester

Identifies simple interface problems which you can repair yourself.

Targets the status of lines 2, 3, 4, 5, 6, 8, 11, 19, and 20.

Connectors:

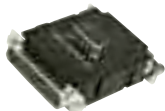
male to female DB25.



| Part No. | Description       | 1      | 10     | 100    |
|----------|-------------------|--------|--------|--------|
| 14285    | Check line tester | \$8.95 | \$8.09 | \$7.25 |

## RS-232 Signal Adapter/Splitter

- Metal connectors: DB25 female and male, and DB9 male
- Gold-plated contacts



| Part No. | Description    | 1      | 10     | 100    |
|----------|----------------|--------|--------|--------|
| 105196   | Serial adapter | \$7.95 | \$6.95 | \$5.95 |

## PC Cable-Check® Pro

This powerful universal cable tester troubleshoots and maps 20 types of computer cables for opens, shorts, crosses, and good connections.

PC Cable-Check Pro tests any combination of D-sub 9-pin, D-sub 15-pin, D-sub 25-pin, Centronics 36-pin printer, USB-A and USB-B, Mini USB, PS/2, RJ-11, RJ-45, BNC female-female cables and Firewire.

- Easy to read LED indicators for mapping connections
- Auto power off, auto scan, and manual scan

Paladin Tools®



Includes: 9V battery

| Part No. | Product No. | Price    |
|----------|-------------|----------|
| 652480   | 1577        | \$164.95 |

## EXTECH Network and CATV Cable Tester

Continuity tester for twisted pair cables and F-type CATV coax cables.

- Tests for shorts, opens, miswires, and reversals
- Tests EIA/TIA568A and 568B, 10Base-T
- Shield detection test
- Tests cable lengths from 3 ft. to 600 ft.
- Size: 3.25"H x 2.0"W x 1.25"D

Includes: 2 AAA batteries



Low Cost!

| Part No. | Product No. | Price   |
|----------|-------------|---------|
| 645634   | CT100       | \$28.49 |

## LANtest Network and Modular Cable Tester

- Tests 10Base-T, 10Base-2 thin ethernet cable, RJ45/RJ11 modular cables, 356A, TIA568A/568B and token ring cable.
- Easy to verify cable continuity, open, short and miswire
- Can test the grounding
- Power switch provided for saving battery power



| Part No. | Product No.  | 1        | 10       | 50      |
|----------|--------------|----------|----------|---------|
| 615136   | 45-5767-0000 | \$115.79 | \$104.24 | \$93.82 |

## BNC to Minigrabber® Test Clips

Pomona

- RG 174/U, .100" O.D.
- Rating: 300 V<sub>RMS</sub> max., +50°C (+122°F) max.
- Strain relief: PVC molded directly to connector
- Length: 36"



| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 176954   | 5187-K-36   | \$24.95 | \$22.45 |

## BNC Male w/ Molded Strain Relief to Minigator® Test Clips

Pomona

- RG 58C/U, .195" O.D.
- Rating: 45 V<sub>RMS</sub> max., +50°C (+122°F) max.
- Jaws open to .187" max.
- Length: 36"



| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 176971   | 4532-C-36   | \$18.95 | \$16.95 |

## BNC Cables

- RG58 C/U 50Ω cable
- BNC male connectors
- Molded strain relief
- Length: P/N 159871: 36" P/N 159880: 60"



| Part No. | Product No. | 1       | 10      | 25      |
|----------|-------------|---------|---------|---------|
| 159871   | 2249-C-36   | \$15.95 | \$14.39 | \$12.95 |
| 159880   | 2249-C-60   | 16.79   | 15.95   | 14.95   |

## Stackable Banana Test Lead Cables

Pomona



- 5000V @ 15A • 55°C max.
- 159898: Two 36" leads, mini clip w/ banana
- 45VAC @ 5A max.; beryllium copper contact and glass filled insulation
- 159901: Two 24" leads
- 159919: Two 36" leads

| Part No. | Prod. No. | Description    | 1      | 10     | 25     |
|----------|-----------|----------------|--------|--------|--------|
| 159898   | 3782-36   | Mini w/ banana | \$9.95 | \$9.45 | \$8.75 |
| 159901   | B-24-02   | Patch cord     | 9.95   | 8.95   | 7.95   |
| 159919   | B-36-02   | Patch cord     | 9.95   | 8.95   | 7.95   |

## Phone Line Tester

- Loop limit: 2kΩ max. @ 48VDC
- DC resistance (talk mode): 300Ω typical
- Monitor impedance: 39kΩ nominal @ 1kHz
- Monitor amplifier: 9V transistor provides 25 hours continuous use
- Auto power shut-off
- Power source: shared line and battery power (9V)
- Size: 10.3"L x 2.8"W x 3.5"H



| Part No. | Product No. | Price    |
|----------|-------------|----------|
| 673707   | MT-8001     | \$188.95 |

Pomona

## Solderless Banana Plugs



- Nickel-plated
- ABS insulation
- Sets include 1 black and 1 red
- Set screws secure leads
- 5000VDC @ 15A
- 50°C max.

159863: w/ safety collar

159855: w/ set screw

159927: double banana plug w/ wire guide

| Part No. | Prod. No. | Description   | 1      | 10     | 25     |
|----------|-----------|---------------|--------|--------|--------|
| 159863   | 1825-02   | Safety collar | \$3.29 | \$2.99 | \$2.69 |
| 159855   | 1325-02   | Set screw     | 3.29   | 2.99   | 2.69   |
| 159927   | MDP-02    | Double banana | 5.95   | 5.65   | 4.95   |

## BNC to Standard Double Banana Plugs



Permits BNC cables to be used with equipment having banana jacks. Lower connection: BNC; upper connection: double banana plug on .750" centers. Cross holes .166" diameter in body provide side stack-up connections.

| Part No. | Description         | 1      | 10     | 100    |
|----------|---------------------|--------|--------|--------|
| 11440    | BNC banana plug (F) | \$4.95 | \$4.49 | \$3.99 |
| 125225   | BNC banana plug (M) | 6.05   | 5.14   | 3.86   |

## Double Banana Plugs

- Dual gold-plated female banana plugs
- Stackable



| Part No. | Description        | 1      | 10     | 100    |
|----------|--------------------|--------|--------|--------|
| 125210   | Black banana conn. | \$2.65 | \$2.25 | \$1.69 |
| 125217   | Red banana conn.   | 2.35   | 2.15   | 1.95   |

## 1" Screw-Type Binding Posts

- For both wire and standard banana
- 0.16" hole for banana test leads
- Chassis mount w/ lock washer and nut
- Solder tab hole: 0.06"Dia.
- Size: 1.0"L x 0.5"Dia.



Requires: 0.32" mounting hole

Includes: One red and one black insulated post

| Part No. | Description       | 1      | 10     | 100    | 1000   |
|----------|-------------------|--------|--------|--------|--------|
| 71239    | Binding posts (2) | \$ .99 | \$ .85 | \$ .69 | \$ .59 |

## 1 3/4" Screw/Solder Binding Posts

- For both wire & standard banana
- 0.16" hole for banana test leads
- Chassis mounting
- Solder post: 0.06"Dia.
- Size: 1.8"L x 0.5"Dia.



Includes: One red and one black

| Part No. | Description       | 1      | 10     | 100    | 1000   |
|----------|-------------------|--------|--------|--------|--------|
| 77691    | Binding posts (2) | \$1.09 | \$ .95 | \$ .79 | \$ .69 |

JAMECO  
BenchPro

## Double-Banana Plug to Alligator Clips Test Cable

- Red & black rubber boot
- 4" lead wire
- Length: 3'





| Part No. | Description | 1      | 10     | 50     | 100    |
|----------|-------------|--------|--------|--------|--------|
| 107423   | Test cable  | \$3.95 | \$3.49 | \$2.95 | \$2.49 |

## JAMECO BenchPro Mini Test Clips

- Two lengths
- Includes: One black and one red hooked probe clip



| Part No. | Description   | 1      | 10     | 100    |
|----------|---|--------|--------|--------|
| 114809   | 1.75" mini test clips  | \$1.89 | \$1.49 | \$1.35 |
| 114818   | 3.5" mini test clips   | 1.75   | 1.49   | 1.12   |

## JAMECO BenchPro Alligator Clip Leads

- 24 AWG wire
- Color-coded, 15" long
- Insulated alligator clip on each end
- 10 per pkg. in assorted colors



| Part No. | Description     | 1      | 10     | 100    |
|----------|-----------------|--------|--------|--------|
| 10444    | Alligator leads | \$4.39 | \$3.95 | \$3.56 |

## JAMECO BenchPro BNC to Alligator Clip Test Cable

Permits BNC assembly to be used as a test cable.

- Upper connection: two alligator clips - red 5.5" 22AWG wire; black 9" 22AWG wire
- Lower connection: 23" RG/58U cable with BNC connector



| Part No. | Description   | 1      | 10     | 100    |
|----------|---|--------|--------|--------|
| 11384    | BNC cable  | \$3.49 | \$2.49 | \$2.25 |

## JAMECO BenchPro Insulated Alligator Clips

- Color-coded
- Insulated barrel
- Jaw opening .375"-0.5"
- Solder strap and pre-drilled hole for 6-32 self threading screw
- Size: 2.3"L x 0.5"W



Includes: One red and one black clip

| Part No. | Description   | 1      | 10     | 100    |
|----------|---|--------|--------|--------|
| 70991    | Alligator clips  | \$0.39 | \$0.36 | \$0.33 |

## JAMECO BenchPro 1 1/4" Banana Plugs

- Set-screw connection
- Standard banana spring plug
- Additional 6-32 threaded hole for connection reliability
- Insulating sleeve is threaded to banana plug body
- .1875" lead opening
- Size: 1.6"L x 0.4"Dia.



Includes: One red and one black plug

| Part No. | Description  | 1      | 10     | 100    |
|----------|--|--------|--------|--------|
| 72195    | Banana plugs  | \$1.59 | \$1.49 | \$1.25 |

## JAMECO BenchPro 2 1/4" Banana Plugs

- Nine rib spring plug
- Will accept up to 0.1" dia. wire
- Each plug equipped with hole for interconnection
- Insulating sleeve fits snugly over copper post
- Size: 2.3"L x 0.3"W
- Set-screw connection








Includes: One red and one black connector

| Part No. | Description  | 1      | 10     | 100    |
|----------|--|--------|--------|--------|
| 137526   | Banana plugs  | \$2.95 | \$2.12 | \$1.84 |

## JAMECO BenchPro Alligator Clips

- Sold in increments of 2

 Blue Part No. = Limited Quantity Available

| Part No. | Description  | Size (L"xW") | 2     | 4     | 10    |
|----------|--|--------------|-------|-------|-------|
| 248921   | Mini-alligator clip solder/crimp  | 1.2 x 0.3    | \$.28 | \$.25 | \$.23 |
| 256525   | Alligator clip, barrel/screw      | 1.9 x 0.2    | .45   | .38   | .35   |
| 248938   | Alligator clip, solder/crimp      | 1.6 x 0.3    | .52   | .48   | .42   |
| 248972   | Red ins. for 248938/256525        | —            | .29   | .27   | .25   |
| 248962   | Blk. ins. for 248938/256525       | —            | .23   | .21   | .18   |




## JAMECO BenchPro BNC Female Connector with 20AWG Lead Wires

Solder the 20AWG wires onto your protoboard, plug the BNC female connector into your test equipment and you have an instant testing board for varied applications.

- BNC female connector
- 7" 20AWG lead wires




| Part No. | Cross Ref. No.  | 1      | 10     | 100    |
|----------|---|--------|--------|--------|
| 256831   | CBB-069  | \$5.39 | \$5.15 | \$4.89 |

## JAMECO BenchPro Micro Test Clip

- One piece per package

**Quantity SAVE**



| Part No. | Description  | 1     | 10    | 100   |
|----------|--|-------|-------|-------|
| 153162   | 1.6" micro test clip  | \$.95 | \$.81 | \$.61 |

## JAMECO BenchPro Mini-Clip Test Leads

These spring loaded mini-clips hook easily to IC pins for testing.

- Set of five: red, blue, green, black and yellow
- 14"L; clips on both ends
- 26 AWG to 300V CSA/UL approved wire





| Part No. | Description   | 1       | 10      | 100    |
|----------|---|---------|---------|--------|
| 135299   | Mini test leads  | \$11.49 | \$10.39 | \$9.29 |

## JAMECO BenchPro Mini-Clip to Banana Test Cables

- Plunger-type action
- Available in black or red
- Positive connection that won't disconnect from components
- Banana plug connection on opposite end
- 20 AWG insulated wire
- Length: 3.5'



| Part No. | Description  | 1      | 10     | 100    |
|----------|--|--------|--------|--------|
| 21857    | Black test cable  | \$3.95 | \$3.55 | \$2.99 |
| 21865    | Red test cable    | 3.95   | 3.49   | 2.99   |

## JAMECO BenchPro Banana-to-Banana Test Leads


- Stackable
- Color coded: 2 each red, yellow, blue, black, white
- 9.8" long
- 10 per package
- 18 AWG wire




| Part No. | Description  | 1       | 10      | 25      |
|----------|--|---------|---------|---------|
| 77841    | Test leads  | \$22.95 | \$20.69 | \$18.59 |

## Scotchall Test Clip

- Hexnut for adjusting tension
- Rapid easy connectors
- Threaded stud standard

| Part No. | Prod. No.  | Description  | 1      | 10     | 100    |
|----------|--|--------------|--------|--------|--------|
| 469087   | 02-0  | Threaded std | \$2.35 | \$2.28 | \$2.21 |

 This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

## 0.025" (0.64mm) Square Pin To Straight Banana Plug Adapter

- Excellent for use as a jumper on circuit cards with 0.6mm (0.025") square pins and equipment with 4.2mm (0.166") diameter pin jacks
- Plug body: brass alloy
- Insulation: polypropylene
- Connector: in-line banana plug
- Spring material: beryllium copper alloy
- Wire: 22AWG stranded (26 x 36) PVC insulated, 36" long
- Pin connector: 0.64mm (0.025") square pin receptacle, phosphor bronze gold plated



| Part No. | Product No. | Color | 1      | 5      | 10     |
|----------|-------------|-------|--------|--------|--------|
| 684553   | 4771-36-0   | Black | \$6.09 | \$5.95 | \$5.79 |
| 684570   | 4771-36-2   | Red   | 6.09   | 5.95   | 5.79   |

## Pomona Micro SMD Oscilloscope Tip Adapter

- Adapter attaches to monolithic type oscilloscope probes
- Interface with Pomona's micro SMD grabbers
- Adapter provides electrical connection to probe tip and probe head grounding area
- Dual leads allows oscilloscope probe to attach to 0.025" (0.64mm) diameter posts



| Part No. | Product No. | 1       | 5       | 10      |
|----------|-------------|---------|---------|---------|
| 684588   | 6443        | \$56.69 | \$55.19 | \$53.65 |

Committed to You



We're committed to providing you with the best service in the industry.



## PROBE MASTER Probe Test Leads

- 23K gold tips
- Silicon wire
- 1000V rated
- Length: 3'3"

174625 Includes:  
10 plunger type tips

212222 Includes:  
10 pieces: screw-on  
alligator clips, spade  
lugs and spring hooks



212222

| Part No. | Description          | 1       | 10      | 25      |
|----------|----------------------|---------|---------|---------|
| 174625   | Micro tip test leads | \$31.35 | \$29.76 | \$28.57 |
| 212222   | Softie test leads    | 24.69   | 23.48   | 22.31   |

## PROBE MASTER Probe Kit

- Rating: 1000V 10A
- Gold tips and contacts
- Electronic deluxe probe kit includes leads with shrouded right angle banana plug, probes, sprung hook probes, alligator clips, spade lugs, extender probes, minigator leads, .025" wire wrap leads, pico hooks and pincer hooks



| Part No. | Description             | 1       | 10      |
|----------|-------------------------|---------|---------|
| 212249   | Elect. deluxe probe kit | \$70.29 | \$66.78 |

## Pomona Micro SMD Grabber® Test Clips For 0.05" (1.25mm) to 0.02" (0.5mm) Lead Pitch

- Use with PQFT & SOIC packages with 0.02" lead pitch or greater
- Pincers are stationary, housing moves to close tips together
- 20mm long tip allows measurement at IC leads that are not easily accessible
- Thin body style allows an unlimited numbers of clips to be stacked side by side
- Device under test must be inactive when connecting pincers
- Max. frequency: 100MHz
- Flying lead connection: gold plated copper



684481

| Part No. | Product No. | Color | 1       | 5       | 10      |
|----------|-------------|-------|---------|---------|---------|
| 684481   | 6490-0      | Black | \$25.35 | \$24.95 | \$24.59 |
| 684490   | 6490-2      | Red   | 25.35   | 24.95   | 24.59   |

## Pomona Micro SMD Grabber® Test Clip for 0.05" (1.25mm) to 0.01" (0.2mm) Lead Pitch

- Use with PQFT & SOIC packages with 0.2mm lead pitch or greater
- 8mm long tip allows measurement at IC leads that are not easily accessible
- Max. frequency: 100MHz
- Thin body style allows an unlimited numbers of clips to be stacked side by side
- Tip tubing: Teflon™ coated nickel plate copper
- Flying lead connection: gold plated copper



684502

| Part No. | Prod. No. | Lead Ht. | Pitch       | Tip   | 1       | 5       | 10      |
|----------|-----------|----------|-------------|-------|---------|---------|---------|
| 684502   | 6311      | 0.55"    | 0.03"-0.01" | Long  | \$86.45 | \$85.05 | \$82.39 |
| 684537   | 6312      | 0.55"    | 0.05"-0.01" | Long  | 87.45   | 86.05   | 83.35   |
| 684545   | 6313      | 0.55"    | 0.05"-0.01" | Short | 75.69   | 74.49   | 72.15   |

## FLUKE Probe Light & Kit



667497



667518

Do not risk shorting out expensive electronics or risk shock in high voltage panels. With this white LED probe light, simply snap on to any test probe or leads and you will have an instant hands-free light at your fingertips.

- 120 hours of battery life
- Uses 2 3-volt watch batteries

667518: Probe Light kit includes L200 probe light, TL71 premium test lead set, and case

| Part No. | Product No. | 1       | 3       |
|----------|-------------|---------|---------|
| 667497   | L200        | \$17.95 | \$17.05 |
| 667518   | L211        | 41.95   | 39.85   |

## Pomona Replacement Probe Test Lead Set

- Set of two PVC 48" insulated leads, probe to banana plug
- Fits all DMMs
- Right-angle multimeter connectors



| Part No. | Product No. | 1       | 10      | 25      |
|----------|-------------|---------|---------|---------|
| 155951   | 5519A       | \$12.95 | \$11.69 | \$10.99 |

## Pomona Minigrabber® Test Clip Patch Cord Kit

- One each of 10 colors: black, brown, red, orange, yellow, green, blue, violet, gray and white
- 24" leads; clips on both ends



| Part No. | Prod. No. | Description       | 1       | 10      |
|----------|-----------|-------------------|---------|---------|
| 156494   | 5523      | Patch cord (hook) | \$36.45 | \$33.52 |

## Pomona 11"L Test Lead Holders

- Max cable dia.: 0.450"
- 155977: Max cable dia.: 0.320"
- 155969: Max cable dia.: 0.210"



155985

| Part No. | Prod. No. | Slots | Color  | 1       | 10      | 25     |
|----------|-----------|-------|--------|---------|---------|--------|
| 155985   | 2708B     | 9     | Blue   | \$10.75 | \$10.23 | \$9.76 |
| 155977   | 4408      | 10    | Black  | 10.45   | 9.69    | 8.95   |
| 155969   | 1508      | 14    | Orange | 11.95   | 10.75   | 9.76   |

## JAMECO BenchPro BNC to Clip Test Cables



11422

11464

BNC connectors are designed for signal frequencies into the gigahertz range, making them ideal for communications, video & test equipment.

- Micro-clip or mini-clip
- Length: 39"

| Part No. | Description      | 1      | 10     | 50     | 100    |
|----------|------------------|--------|--------|--------|--------|
| 11422    | Micro-clip RG174 | \$3.99 | \$3.19 | \$2.89 | \$2.59 |
| 11464    | Mini-clip RG174  | 4.39   | 3.99   | 3.59   | 3.19   |

## Panel Mount Tip Jacks 1/4" - 32 Thread

Mounts in panels ranging in thickness from 0.063" to 0.375".

- Plating: bright tin
- Material: brass
- Insulation: polycarbonate
- 10 per package



| Part No. | Cross Ref. No. | Color | 1      | 10     | 100    |
|----------|----------------|-------|--------|--------|--------|
| 256778   | R1-17-BLK      | Black | \$8.75 | \$7.44 | \$5.58 |
| 263863   | R1-17-RED      | Red   | 8.59   | 8.15   | 7.75   |

## JAMECO BenchPro Double Binding Posts - Dual Banana

- Red/black design
- Screw-mount
- 0.72" between posts
- Size: 1.6"L x 1.4"W



| Part No. | Description      | 1      | 10     | 100    |
|----------|------------------|--------|--------|--------|
| 125197   | Double bind post | \$3.95 | \$3.45 | \$3.19 |

## JAMECO BenchPro BNC to Double Binding Posts - Dual Banana

- Red/black design



125233

| Part No. | Description | 1      | 10     | 100    |
|----------|-------------|--------|--------|--------|
| 125233   | BNC-female  | \$4.95 | \$4.49 | \$4.05 |
| 99354    | BNC-male    | 5.29   | 4.76   | 4.28   |

## JAMECO BenchPro Universal Test Lead Kit

Includes: 3' black/red cables, 4.5" black/red insulated test probes, 0.8" needle probes, spade terminals, 2 sets of 4 pieces each red/black insulated alligator clips and banana plug



| Part No. | Description   | 1      | 10     | 100    |
|----------|---------------|--------|--------|--------|
| 168516   | Universal kit | \$8.95 | \$7.95 | \$6.95 |

## JAMECO BenchPro Protected Banana Style Multimeter Test Probes

- Threaded/pointed test tip
- Black and red
- 18 AWG wire
- 42" long
- 2 per package



| Part No. | Description      | 1      | 10     | 25     |
|----------|------------------|--------|--------|--------|
| 77737    | Protected probes | \$6.49 | \$5.85 | \$5.25 |

## JAMECO BenchPro Standard Banana Style Multimeter Test Probes

- Black and red
- 18 AWG wire
- 2 per package
- 42" long



| Part No. | Description        | 1      | 10     | 25     |
|----------|--------------------|--------|--------|--------|
| 77746    | Std. banana probes | \$7.69 | \$6.95 | \$6.25 |

## Free Technical Support

Our knowledgeable Tech Support department is ready to answer your questions. Just call us!

1-800-831-4242



## 51-Piece Tech Tool Kit

Essential kit for electronic machine maintenance and repair jobs!

- In addition to the tools listed in the matrix right, the kit includes:
  - 2 nut drivers
  - Solder pen
- Case features removable pallets, a combination lock and a cushioned black plastic handle
- Size: 12.5"L x 17.5"W x 3.5"H • Weight: 10.4 lbs.



| Part No. | Description       | 1       | 5       |
|----------|-------------------|---------|---------|
| 26681    | 51-piece tool kit | \$94.95 | \$75.95 |

## 55-Piece Tech Tool Kit

An assortment of tools for general & precision work for technicians, engineers, students, etc.

- In addition to the tools listed in the matrix right, the kit includes:
  - Screwdriver handle
  - 6-pc mini-hammer set
  - 5-pc of double edge blade
  - PLCC extraction tool
- Outer velcro pockets to store paperwork, etc.
- Complete your assortment with a multimeter (See pages 272-275)
- Size: 17.6"L x 12.8"W x 4.0"H • Weight: 9.2 lbs.

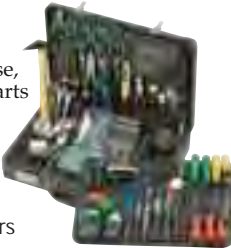


| Part No. | Description       | 1        | 5        |
|----------|-------------------|----------|----------|
| 136311   | 55-piece tool kit | \$128.95 | \$112.46 |

## 57-Pc. Master Electronics Tool Kit

Simply every tool needed for field repair or installation. All in a handsome lockable case, with room for spare parts or special equipment.

- In addition to the tools listed in the matrix right, the kit includes:
  - 5" & 6" side cutter
  - 5" & 6" long nose pliers
  - 8" combination pliers
  - 9.5" water pump pliers
  - Alignment driver
  - Parts tube
  - 5-piece file set
  - 6" stainless scissors
  - Testing driver
  - Solder wick
  - PVC insulated tape
  - Oil can
  - Carpenter hammer
- Carrying case has two removable pallets, adjustable compartments, and combination locks
- Size: 18.0"W x 13.0"D x 4.0"H • Weight: 16.0 lbs.



| Part No. | Description                | 1        | 5        |
|----------|----------------------------|----------|----------|
| 218245   | Master electronic tool kit | \$128.95 | \$121.65 |

## 26-Piece SAE Hobby Tool Set

- 4-1/2" long nose pliers
- 4-1/2" diagonal cutting pliers
- #1 & #2 Phillips bits
- #1 & #2 pozi bits
- 3/16" & 1/4" slotted bits
- Hex to 1/4" driver adapter
- T-10, T-15, and T-20 Torx bits
- Driver handle
- 3" extension bar for 1/4" drive
- 3 slotted and 3 screw driver precision set
- 3/16", 1/4", 11/32" and 3/8" sockets for 1/4" drive
- Size: 12.0"L x 9.0"W x 2.0"H • Weight: 1.5 lbs.



| Part No. | Description         | 1       | 10      | 25      |
|----------|---------------------|---------|---------|---------|
| 170069   | 26-pc. SAE tool set | \$17.95 | \$16.16 | \$13.69 |

## 100-Piece Professional Electronics Tool Kit

Kit for field technicians and engineers!

- In addition to the tools listed in the matrix below, the kit includes:
  - Computer/polarity circuit tester
  - Mini vacuum cleaner
  - Cassette head cleaning fluid
  - 3.6V cordless screwdriver kit (bits included)
- Aluminum case features removable pallets, surface-type locks, and black plastic handle
- Size: 18.0"L x 14.0"W x 6.0"H • Weight: 15.5 lbs.



| Part No. | Description        | 1        | 5        |
|----------|--------------------|----------|----------|
| 242851   | 100-piece tool kit | \$199.95 | \$189.95 |

## 114-Piece Tech Service Tool Kit

In addition to the tools listed in the matrix below, the kit includes:

- 40-pc socket pack
- 6" side cutter
- 6" long nose pliers
- 6" slip joint pliers
- Carpenter hammer
- 3 piece trimmer set
- Stainless steel spring hook
- Solder wick
- 8" combination pliers
- 2 removable pallets
- Size: 18.5"L x 13.8"W x 6.7"H • Weight: 22.8 lbs.



| Part No. | Description        | 1        | 5        |
|----------|--------------------|----------|----------|
| 149024   | 114-piece tool kit | \$279.95 | \$251.99 |

### Quick-Reference Table of Additional Tool Kit Contents

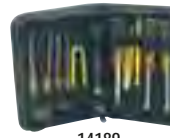
| Parts included in kits   | 26681          | 136311          | 218245          | 242851          | 149024          |
|--------------------------|----------------|-----------------|-----------------|-----------------|-----------------|
| 3-prong holder           |                | 1               | 1               | 1               | 1               |
| Anti-static strap        |                | 1               |                 | 1               | 1               |
| Brush                    | 1              | 1               | 1               | 1               | 1               |
| Crimping tool            |                | 1 (7-way)       | 1               | 1               | 1               |
| Desoldering pump         | 1              | 1               | 1               | 1               | 1               |
| Digital Multimeter       | 1              |                 |                 | 1               |                 |
| Drill set                |                |                 |                 |                 | 1               |
| Files, needle            | 2-pc           |                 |                 | 6-pc            | 5-pc            |
| Flashlight               |                | 1               | 1               | 1               | 1               |
| Forceps                  |                |                 |                 |                 | 1               |
| Heat sink                |                | 1               | 1               |                 | 1               |
| IC extractor             |                | 1               | 1               |                 | 1               |
| Inspection mirror        |                |                 | 1               |                 | 1               |
| Measuring tape, 10-foot  | 1              |                 | 1               |                 | 1               |
| Pliers, 8" lineman       |                | 1               |                 | 1               |                 |
| Pliers, bent needle nose | 1              | 1               | 1               | 1               | 1               |
| Pliers, diagonal cutter  | 1              | 1               | 1               | 1               | 1               |
| Pliers, flat nose        | 1              | 1               |                 | 1               | 1               |
| Pliers, snipe nose       |                |                 |                 |                 | 1               |
| Scissors                 | 1              |                 | 1               | 1               |                 |
| Screwdriver set          | 8-pc           | 3-pc            | 8-pc            | 12-pc           | 9-pc            |
| Screwdrivers, precision  | 6-pc           | 6-pc            | 6-pc            | 6-pc            | 6-pc            |
| Solder core              |                | 1               | 11              | 1               | 1               |
| Soldering aid kit, 3-pc  | 1              | 1               | 1               | 1               | 1               |
| Soldering iron           | 1 (30W)        | 1 (30W)         | 1 (30W)         | 1 (30W)         | 1 (25W)         |
| Soldering stand          | 1              |                 | 1               | 1               |                 |
| Tape, electrician        |                |                 |                 | 1               | 1               |
| Tweezers                 | 1              | 2               | 1               | 1               | 1               |
| Utility components box   | 1              |                 | 1               | 1               | 1               |
| Utility knife            | 1              | 1               | 1               | 1               |                 |
| Wire stripper            |                |                 |                 |                 | 1               |
| Wrench, adjustable       |                | 1               | 1               | 1               | 1               |
| Wrench, hex key          | 7-pc           | 7-pc            | 7-pc            | 7-pc            | 7-pc            |
| Wrench set               |                |                 | 6-pc            | 5-pc            | 10-pc           |
| <b>Total Pieces</b>      | <b>51</b>      | <b>55</b>       | <b>57</b>       | <b>100</b>      | <b>114</b>      |
| <b>Price</b>             | <b>\$94.95</b> | <b>\$128.95</b> | <b>\$128.95</b> | <b>\$199.95</b> | <b>\$279.95</b> |

## 11 & 12-Piece Lightweight Computer-Service Tool Kits

- Both kits include:
  - 2 nut drivers: 3/16", 1/4"
  - 3-claw parts holder
  - 1-pc hex key wrench
  - IC extractor
  - 4-pc screwdriver set
  - Tweezers



167206



14189

### 167206: 11-Piece Tool Kit

- Clear components, tube holder

### 14189: 12-Piece Tool Kit

- 14-16 pin IC inserter/straightener

| Part No. | Description       | 1       | 10     | 25     |
|----------|-------------------|---------|--------|--------|
| 167206   | 11-piece tool kit | \$13.25 | \$9.83 | \$7.37 |
| 14189    | 12-piece tool kit | 16.95   | 15.26  | 13.73  |

## 24-Piece PC Premium Tool Kit

- 3.2mm x 75mm slotted screwdriver
- #0 x 75mm Phillips screwdriver
- 3 prong holder
- Spring tweezer
- Spare parts tube
- IC extractor
- Torch
- Extension bar for ratchet bits
- Adjustable ratchet screwdriver
- Side cutter pliers
- 5mm and 7mm slotted bit
- T10, T15, T20, T25, and T30 Torx bit
- 1/4" and 3/16" nut
- Size: 8.4"L x 5.9"W x 1.4"H • Weight: 1.3 lbs.
- Long nose pliers
- #1 and #2 Phillips bit
- Socket adapter



| Part No. | Description               | 1       | 5       |
|----------|---------------------------|---------|---------|
| 226085   | 24-piece premium tool kit | \$17.95 | \$14.36 |

## 40-Piece Electronic Tech Tool Kit

### The kit includes:

- Wire cutters/stripper
- Adapter bit for sockets
- Pocket clip screwdriver
- Potentiometer alignment tools
- T10-T25 reversible Torx screwdriver bits
- 3/16"-1/2" S.A.E. nut driver sockets
- 6mm-12mm metric nut driver sockets
- Slotted and Phillips screwdriver bits
- 10-pc screwdriver set
- Extra long 3-claw parts holder
- IC inserter w/ pin straightener
- IC extractor



**Quantity SAVE**

Size: 9.5"L x 6.8"W x 1.4"H • Weight: 1.7 lbs.

| Part No. | Description       | 1       | 10      | 25      |
|----------|-------------------|---------|---------|---------|
| 119183   | 40-piece tool kit | \$21.95 | \$18.66 | \$14.00 |

Our goal is to provide you with more of what you want. Let us know how we can better serve your electronics needs. Please send your requests to [NewProducts@Jameco.com](mailto:NewProducts@Jameco.com).

## Aluminum Tool Case

This heavy-duty case is made of lightweight durable aluminum. A single inside panel and adjustable compartments easily carry hand tools, small soldering equipment, hand-held test equipment, and more.

Size: 19.0"L x 14.0"W x 6.0"D



| Part No. | Description | 1       | 5       |
|----------|-------------|---------|---------|
| 261884   | Tool case   | \$49.95 | \$44.95 |

## Heavy-Duty Tool/Equipment Case

Made of lightweight aluminum, this tool case is designed to take rough field use. Case includes tool pallet, egg carton foam lid, and 2.5" thick pre-cut foam bottom. Ideal for carrying fragile instruments, test equipment, and small hand tools.

Size: 19.0"L x 14.0"W x 6.0"D



| Part No. | Description         | 1       | 5       |
|----------|---------------------|---------|---------|
| 261877   | Tool/equipment case | \$48.57 | \$44.15 |

## 2-In-1 Zippered Tool Bag

A high-quality tool tote case that can be used as two separate bags or zipped together as one case. The first bag has two large pouches for documents and paperwork or large items. The second bag contains 20 pockets for tools.

Size: 16.0"L x 12.0"W x 2.5"D



| Part No. | Description    | 1       | 5       |
|----------|----------------|---------|---------|
| 261868   | Tool/tote case | \$24.25 | \$22.09 |

## Double Layer Nylon Tool Bag

This nylon tool bag provides enough space to carry your tools anywhere. Zippered bottom panel for long flat tools, 8 external pockets and 4 internal pockets for everyday use tools.

- Material: double layer rugged nylon
- Color: light brown and green
- Size: 15.5" (38.1 x 19.0 x 30.5cm)



| Part No. | Product No. | 1       | 5       |
|----------|-------------|---------|---------|
| 645511   | VTBAG2      | \$39.95 | \$37.45 |



With an 81-year history of innovation, Platt Luggage proudly manufactures a vast variety of carrying cases. Platt is a world leader in the manufacture of tool carrying cases. Now you can purchase these renowned cases from Jameco!

All Platt products feature a one year warranty from date of purchase against manufacturing defects. Product quality is assured. With the Platt name, you are assured of the highest quality product—both American made and World class!

### Blow Molded Cases

These cases are manufactured from prime, high-density polyethylene and feature double wall construction. The textured exteriors resist dents, cracking and scuffs.



| Part No. | Product No. | Color | Inside Dim. (L"xW"xH") | 1       | 5       |
|----------|-------------|-------|------------------------|---------|---------|
| 692887   | 207         | Black | 9.5 x 6.0 x 2.7        | \$14.99 | \$14.92 |
| 692895   | 307         | Black | 11.0 x 7.0 x 3.4       | 22.35   | 21.99   |
| 692908   | 407         | Black | 12.4 x 8.9 x 5.1       | 29.25   | 28.99   |
| 692916   | 507         | Black | 13.9 x 9.9 x 4.0       | 37.45   | 36.99   |

### Heavy Duty ATA Cases with Wheels and Telescoping Handle

Once you own one of these shippable tool cases, you won't want to own anything else! If you travel by air and need to bring your toolset, these cases are right for you.

693011



| Part No. | Product No. | Color | Inside Dim. (L"xW"xH") | Inside Depth (ins.) | 1        | 5        |
|----------|-------------|-------|------------------------|---------------------|----------|----------|
| 693011   | 221609AH    | Black | 19.6 x 13.5 x 9.0      | 5.5                 | \$266.85 | \$254.99 |
| 693038   | 282011AH    | Black | 27.5 x 19.5 x 11.0     | 5.5                 | 316.65   | 299.99   |

## More Platt Cases Online

## Tool Cases and Bags

### Mechanics Tool Bags

These handy "Mechanic's Tool Bags" are similar to the GI tool bag used for decades by the U.S. Military. Water-repellent Cordura fabric makes it much more durable and with 8 sewn-in pockets on the inside and 2 divided snap pouches on the outside, you'll keep your smaller tools and parts organized.



693118

| Part No. | Product No. | Color | Outside Dim. (L"xW"xH") | 1       | 10      |
|----------|-------------|-------|-------------------------|---------|---------|
| 693100   | MTB         | Black | 12.0 x 6.0 x 6.5        | \$20.65 | \$19.38 |
| 693118   | MTB-BLU     | Blue  | 12.0 x 6.0 x 6.5        | 20.65   | 19.38   |

### Medium Duty ABS Cases

Modern look of heavy duty grained ABS with extruded aluminum frame, deluxe golf grip handle, cast chrome key locks and piano hinge.

692959



| Part No. | Product No. | Color | Inside Dim. (L"xW"xH") | Inside Depth (ins.) | 1        | 5        |
|----------|-------------|-------|------------------------|---------------------|----------|----------|
| 692959   | 2207        | Black | 22.0 x 16.0 x 7.0      | 4                   | \$123.29 | \$119.99 |
| 692967   | 2407        | Black | 24.0 x 18.0 x 7.0      | 4                   | 138.19   | 135.99   |
| 692975   | 2807        | Black | 28.0 x 20.0 x 7.0      | 4                   | 154.45   | 149.99   |

### Heavy Duty Polyethylene Cases

The exterior shell is tough, impact-resistant HMW polyethylene. Features heavy-duty aluminum rim with black trim and gasket with cast chrome key locks, full-length piano hinge, and deluxe golf grip handle.

692991



| Part No. | Product No. | Color | Inside Dim. (L"xW"xH") | Inside Depth (ins.) | 1        | 5        |
|----------|-------------|-------|------------------------|---------------------|----------|----------|
| 692983   | 181307      | Black | 18.5 x 12.5 x 7.0      | 4                   | \$123.75 | \$114.99 |
| 692991   | 201407      | Black | 19.6 x 13.5 x 7.0      | 4                   | 151.55   | 144.99   |
| 693003   | 282007      | Black | 27.5 x 19.5 x 7.0      | 4                   | 197.75   | 184.99   |

▲ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

## Weller® 250-Watt, 3-Setting Industrial Heat Gun

- 750°F to 800°F hot air at nozzle; 3-position switch; hot-off-cool
- Designed for assembly and repair applications such as shrink tubing and vinyl, epoxy curing/drying/cooling
- 120VAC @ 60Hz • ESD safe
- Long-life heater and fan components
- 3-wire grounded plug; 6' cord



| Part No. | Product No. | Wt. (lbs.) | 1        | 10       |
|----------|-------------|------------|----------|----------|
| 191943   | 6966C       | 1.2        | \$119.95 | \$107.95 |

## 1000-Watt Heat Gun

- Dual heat setting: 600°F/1100°F
- Works with spot dry paints, plaster, spackle, and cure adhesives
- Use with heat-shrink material
- Thaw pipes, frozen locks, and loosen rusted bolts
- Input voltage: 110-120 VAC



| Part No. | Description | 1       | 6       | 12      |
|----------|-------------|---------|---------|---------|
| 254925   | Heat gun    | \$42.55 | \$41.10 | \$36.85 |

## Heat Gun/Stripper

### Dual-Setting

- Use with heat shrink material
- Works with spot-dry paint, plaster, spackle cure adhesives
- Will remove adhesive-applied tiles and linoleum without chipping
- Dual heat setting: 600°F/1100°F
- Thaw frozen pipes and locks, and loosen rusted bolts
- UL listed
- Size: 9.3"L x 7.0"W
- Weight: 1.8 lbs.



76865



217816



217832

**Quantity SAVE**

| Part No. | Description            | 1       | 10      | 25      |
|----------|------------------------|---------|---------|---------|
| 76865    | Heat gun               | \$39.95 | \$35.95 | \$31.95 |
| 217816   | Heat shrink attachment | 1.95    | 1.85    | 1.75    |
| 217832   | Air spreader           | 1.95    | 1.66    | 1.25    |

## Keep It Safe!

Ever consider how much it really costs to replace a prototyped device? When you think about the labor involved, troubleshooting time, etc., chances are the value is much greater than that of the parts.

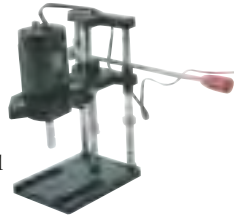
So if you're traveling with your prototyped device, are you protecting it properly? Consider one of the protective carrying cases to the left. The hardened skins will prevent damage to the exterior of your device, and the soft foam padding will dissipate likely impacts.



**Practical Practices**  
Money Saving Tips for the Engineer

## Mini-Drill and Stand

This Mini Drill is excellent for drilling through circuit boards and protoboards. The drill comes with an array of drilling, grinding and sanding attachments. Drill stand is designed to function like a drill press.



| Part No. | Description | Wt. (lbs.) | 1       | 10      | 25      |
|----------|-------------|------------|---------|---------|---------|
| 26702    | MS398 drill | 0.8        | \$29.95 | \$26.95 | \$23.95 |
| 26711    | MS399 stand | 1.8        | 21.95   | 19.75   | 17.55   |

## 32-Piece Security Bit Set

These bits match the security fasteners commonly used in today's electronic products.

**Includes:** Torx bits: #6, #8 and #10; Tri-wing bits: #1, #2, #3 and #4; Security hex bits: 5/64", 3/32", 7/64", 1/8", 9/64", 5/32" 3/16" and 1/4"; Security Torx bits: T8, T10, T15, T20, T25, T27, T30, T35 and T40; Spanner bits: 4, 6, 8 and 10mm; Phillips bits: #1, #2, #3 and #4; and 60mm magnetic bit extension that fits 1/4" hex driver



| Part No. | Description               | 1       | 10      |
|----------|---------------------------|---------|---------|
| 223829   | 32-piece security bit set | \$11.95 | \$10.75 |

## 3-Piece Drill Bit Set

### Drill Bit Set

For drilling component lead wire holes in phenolic or glass epoxy PC boards. Made of high speed tool steel for long life. Set contains No. 66 bit – 0.033" dia., No. 60 bit – 0.044" dia., 1/16 bit – 0.0625" dia.



| Part No. | Description           | 1      | 10     | 50     |
|----------|-----------------------|--------|--------|--------|
| 616569   | 3-piece drill bit kit | \$4.55 | \$4.32 | \$4.10 |

## High-Speed Steel Step Drill Bits

Drill multiple holes in thin material with the same bit, faster and easier.

Each bit does the work of many drill bit sizes. You can drill holes in most materials such as plastic, metal, and wood up to 1/8" thick.

229657: • Shank size: 3/8" • 2.4" long  
172401: • Shank size: 1/4" • 2.5" long



172401

| Part No. | Description          | 1       | 10      | 25      |
|----------|----------------------|---------|---------|---------|
| 229657   | 3/16" – 7/8" 13-step | \$14.95 | \$12.71 | \$12.37 |
| 172401   | 3/16" – 1/2" 6-step  | 9.95    | 8.95    | 7.95    |

## 30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 322.

## Loctite® Hot Melt Glue Gun & Glue Sticks

The Loctite® Hysol® 050-LITE is a lightweight handheld hot melt applicator which utilizes a finger actuated trigger mechanism to positively grip and advance all Loctite Hysol 1/2" diameter hot melt sticks.



- Fixed precision temperature setting: 392°F (200°C)
- Adhesive: 1/2" diameter glue sticks
- Melt rate output: up to 1lb. / hour
- Voltage: 100/240VAC@50-60Hz (self adjusting)
- Power: 20 to 500 watts (self regulating)
- Size: 8.0"L x 1.3"W x 6.6"H • Weight: 0.8 lbs.

| Part No. | Product No. | Description       | Price   |
|----------|-------------|-------------------|---------|
| 667577   | 98029       | Hot Melt glue gun | \$37.39 |

| Part No. | Product No. | Description      | 1       | 5       |
|----------|-------------|------------------|---------|---------|
| 667585   | 83383       | White glue stick | \$14.09 | \$13.39 |
| 667606   | 83273       | Tan glue stick   | 8.79    | 8.35    |

## Glue Gun and Glue Sticks

- Adheres to PCBs, cardboard, wires, metal and cloth
- Silicon nozzle
- Electronic heating
- Trigger action
- Utilizes 100mm long gluesticks (2 sticks included) • Size: 7.3"L x 6.3"W



| Part No. | Description         | 1      | 10     | 25     |
|----------|---------------------|--------|--------|--------|
| 72696    | Glue gun            | \$9.95 | \$8.96 | \$8.06 |
| 78633    | Glue sticks (6/pk)  | 3.15   | 2.84   | 2.55   |
| 176292   | Glue sticks (10/pk) | 4.95   | 4.29   | 3.79   |

## PC Board Drill Bits

- Reconditioned carbon steel bits
- High quality long lasting cutting edge • Shank dia.: .125" **Quantity SAVE**
- Use for drilling holes in glass PC boards



| Part No. | Drill Dia. | No. Application   | 1      | 10     | 100    |
|----------|------------|-------------------|--------|--------|--------|
| 16619    | .021" 75   | Misc.             | \$1.55 | \$1.32 | \$0.99 |
| 16580    | .040" 59   | Plated thru holes | 1.75   | 1.49   | 1.12   |

## 9-Piece Assorted Drill Bit Kit

- Variety of sizes: .014" to .126"
- Shank diameter: .125"
- Each kit will vary in contents of bit sizes



| Part No. | Description           | 1      | 10     | 50     |
|----------|-----------------------|--------|--------|--------|
| 131676   | 9-piece drill bit kit | \$9.95 | \$8.95 | \$7.95 |

## Adjustable Cordless Screwdriver

- Adjustable handle can be used folded or unfolded
- Thumb switch for reverse and forward action
- No load speed: 180 RPM
- 3.6V rechargeable battery
- Clutch operating torque from 4 to 21kg-cm
- Size: 10.5"L x 1.5" Dia. • Weight: 1.6 lbs.



| Part No. | Description          | 1       | 10      |
|----------|----------------------|---------|---------|
| 176680   | Cordless screwdriver | \$29.99 | \$26.99 |

**Lower \$\$\$**



## JAMECO Pocket Screwdriver

### Phillips & Flat head

- Size: 6"L
- Pen clip for pocket storage

| Part No. | Description        | 1      | 10     | 100    |
|----------|--------------------|--------|--------|--------|
| 127271   | Pocket screwdriver | \$1.55 | \$1.45 | \$1.19 |

## 11-Pc Precision Screwdriver Set

- 0.9, 1.2, 1.4, 1.8, 2.4 and 3mm slotted screwdrivers
- Phillips #00, #0 and #1 screwdrivers
- Awl • Magnetic pick-up

Blue Part No. = Limited Quantity Available

| Part No. | Description           | 1      | 5      |
|----------|-----------------------|--------|--------|
| 226093   | Precision screwdriver | \$4.49 | \$4.29 |

## 7-Pc Insulated Screwdriver Set

- Tapered handle for sure grip
- Precision ground shank
- Hardened, magnetic tips

Includes: 0.4/0.8/1.0/1.2mm slotted; #0/1/2 Phillips

| Part No. | Description     | 1       | 5       |
|----------|-----------------|---------|---------|
| 261999   | Screwdriver set | \$17.95 | \$16.15 |

## 6-Pc Precision Torx Screwdriver Set

- T5 and T6 x 50mm Torx screwdrivers
- T7, T8, T9, T19 x 50mm Torx hex screwdrivers

| Part No. | Description                | 1       | 5      |
|----------|----------------------------|---------|--------|
| 226106   | Precision TORX screwdriver | \$12.95 | \$9.74 |

## 6-Pc Precision Screwdriver Sets

34041 includes: 3/64", 1/16", 5/64", 5/32", 1/8" & 9/64" slotted screwdrivers

34059 includes: 3/64"#0, 1/16"#0, 5/64"#0, 3/32"#0, 1/8"#1 and 9/64"#1 Phillips screwdrivers

| Part No. | Description  | 1      | 10     | 50     |
|----------|--------------|--------|--------|--------|
| 34041    | Slotted set  | \$3.59 | \$3.05 | \$2.28 |
| 34059    | Phillips set | 3.59   | 3.23   | 2.91   |

## 7-Pc Nut Driver Sets

- Premium hardened steel sockets
- Large colored handles

261850: Metric 5mm, 6mm, 8mm, 9mm, 10mm, 11mm & 13mm

261842: SAE 3/16", 1/4", 5/16", 11/32", 3/8", 7/16", 1/2"

| Part No. | Description           | 1      | 5      |
|----------|-----------------------|--------|--------|
| 261850   | Metric nut driver set | \$8.05 | \$6.01 |
| 261842   | SAE nut driver set    | 9.89   | 9.49   |

## 6-Pc Long-Neck Screwdriver Set

- Three slotted: 0.09"Dia. x 6.6"L; 0.12"Dia. x 9.6"L; 0.16"Dia. x 9.6"L
- Three Phillips: No.0, 0.12"Dia. x 6.64"L; No.1, 0.16"Dia. x 9.61"L; No.2, 0.09"Dia. x 6.65"L

| Part No. | Description           | 1      | 10     | 50     |
|----------|-----------------------|--------|--------|--------|
| 99451    | 6-pc. screwdriver set | \$8.95 | \$7.61 | \$5.71 |

## 6-Piece Screwdriver & Pliers Set

- One micro cutting nipper
- One micro flat nose pliers
- 2 long-neck slotted: 0.12"Dia. x 9.61"L; 0.09"Dia. x 7.64"L
- 2 long-neck Phillips: No.0, 0.12"Dia. x 9.61"L; No.2, 0.09"Dia. x 7.64"L

| Part No. | Description        | 1       | 10      | 50      |
|----------|--------------------|---------|---------|---------|
| 99565    | Screwdriver/pliers | \$14.95 | \$13.40 | \$11.90 |

## 5-Piece Pliers Set

- Precision machined heat-treated jaws
- Vinyl insulated handles

Includes: 6.5" needle nose; 7.5" lineman's; 8" slip joint; 8" groove joint & cutting pliers

Blue Part No. = Limited Quantity Available

| Part No. | Description | 1      | 5      |
|----------|-------------|--------|--------|
| 261905   | Pliers set  | \$9.75 | \$9.25 |

## Precision 5-Piece Stainless Steel Pliers Set



- Spring return
- Insulated handles

Includes: One 3.5"L micro cutting nippers and one each 4"L micro round nose pliers, long nose pliers, flat nose pliers and bent nose pliers

| Part No. | Description | Wt. (lbs.) | 1       | 10      | 25      |
|----------|-------------|------------|---------|---------|---------|
| 73121    | 5-piece set | 0.6        | \$17.95 | \$16.16 | \$14.54 |

## Xcelite Needle Nose Pliers

217891 (submini needle nose): Serrated jaws

- Positive gripping of fine wire or subminiature components
- Fine point allows use in confined areas

217998: Smooth jaws

| Part No. | Prod. No. | Description         | 1       | 10      | 50 |
|----------|-----------|---------------------|---------|---------|----|
| 217891   | L4        | 4" mini needle nose | \$14.95 | \$13.69 |    |
| 217998   | LN54G     | 5" thin long nose   | 14.95   | 13.97   |    |

## Half-Round Long Nose Pliers

- Drop forged steel
- Spring return action
- Length: 4.5"
- Heat treated
- Vinyl grips
- Knurled jaws

| Part No. | Description       | 1      | 10     | 50     | 100    |
|----------|-------------------|--------|--------|--------|--------|
| 177608   | Half-round pliers | \$4.95 | \$4.49 | \$3.95 | \$3.59 |

## 5" Cutting Pliers

Recommended for cutting copper and soft lead wires. Ideal for precise circuit board work. Spring loaded.

| Part No. | Description    | 1      | 5      |
|----------|----------------|--------|--------|
| 261810   | Cutting pliers | \$4.99 | \$4.55 |

## 5.3" Flat and Half-Round Long Nose Pliers

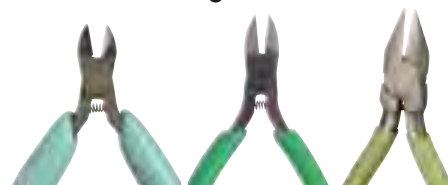
- Stainless steel
- Spring return
- Durable rubber handles
- 5.3" length w/ 1.4" plier nose

35473/35491: Knurl jaws

195531: Smooth jaws

| Part No. | Description    | 1      | 10     | 50     | 100    |
|----------|----------------|--------|--------|--------|--------|
| 35473    | Flat long nose | \$5.49 | \$4.94 | \$3.95 | \$2.96 |
| 195531   | Flat long nose | 5.19   | 4.64   | 3.65   | 2.66   |
| 35491    | Half round     | 5.49   | 4.94   | 3.95   | 2.96   |

## Xcelite Diagonal Cutters



Manufactured from the finest forged alloy steel with polished head and cushion comfort handles.

- Flush cutting edge
- Cutting edges machine ground and electronically hardened for extended life
- Forged alloy steel w/ polished head
- Handle coil springs for fast cutting action
- ESD safe cushion grips for maximum comfort

| Part No. | Prod. No. | Description                     | 1       | 10      |
|----------|-----------|---------------------------------|---------|---------|
| 217921   | MS54J     | 4" oval head-flush              | \$15.95 | \$14.36 |
| 1536974  | S475NJS   | 4" relieved head-flush          | 14.95   | 13.68   |
| 217904   | MS549J    | 4" tapered head-flush           | 14.95   | 13.46   |
| 217867   | MS545J    | 4" slim line tapered head-flush | 14.95   | 13.46   |

## Cutting Pliers

### Flush Cut

- Stainless steel
- Side cutting flush cut
- Leaf spring for smooth controlled action

| Part No. | Description    | 1      | 5      |
|----------|----------------|--------|--------|
| 261789   | Cutting pliers | \$6.95 | \$6.55 |

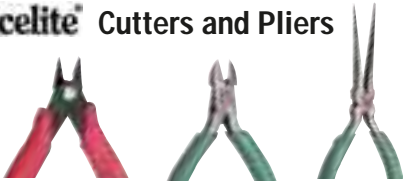
## Heavy Duty Tubing Cutter

- Clever design eliminates spiraling, resulting in straight clean cuts with no burrs
- Cuts copper, brass, aluminum tubing and thin-wall conduit up to 1-1/8" diameter
- Fold-away reamer
- Extra cutter wheel stored in body
- Lightweight aluminum body and knob
- Telescopic wheel-feeding mechanism keeps turning radius constant • Length: 4.8"
- Folding deburring blade on backside




Blue Part No. = Limited Quantity Available

| Part No. | Description   | 1      | 5      |
|----------|---------------|--------|--------|
| 227475   | Tubing cutter | \$8.95 | \$8.07 |

## Xcelite® Cutters and Pliers



- Spring returns
- 146712: Micro series wire cutter – flush; 6"
- 146739: Diag. wire cutter – semi-flush; 4"
- 146721: Long needle nose pliers – flat; 5"

| Part No. | Product No.   | 1      | 10     | 50     | 100    |
|----------|---|--------|--------|--------|--------|
| 146712   | 170M     | \$5.75 | \$5.19 | \$4.69 | \$4.34 |
| 146739   | MS54V    | 13.95  | 12.95  | 11.95  | 11.39  |
| 146721   | MN7776V  | 16.95  | 15.95  | 14.95  | 13.95  |

## Xcelite® Shearcutter/Pliers Set

- Improved handle grip for control and comfort
- Non-glare black finish carbon steel
- Size (plier): 5.6"L
- Size (shearcutter): 5.2"L




| Part No. | Product No.   | 1       | 10      | 25      |
|----------|---|---------|---------|---------|
| 152055   | S2K  | \$15.95 | \$14.95 | \$13.95 |

## 4" Diagonal Wire Cutter

- Drop forged steel
- Heat treated
- Vinyl grips
- Spring return action
- Polished head
- Length: 4"




| Part No. | Description   | 1      | 10     | 50     | 100    |
|----------|---|--------|--------|--------|--------|
| 179902   | Wire cutter  | \$5.49 | \$4.94 | \$4.45 | \$4.00 |

## 4.3" Diagonal Wire Cutter

- Cuts component wire up to 1.2mm thick
- Stainless steel
- Durable rubber handles
- Jaws are designed for flush cutting
- 4.3"L x 2.1"W with 0.5" cutting blade




| Part No. | Description   | 1      | 10     | 50     | 100    |
|----------|---|--------|--------|--------|--------|
| 35482    | Wire cutter  | \$5.59 | \$4.99 | \$4.55 | \$3.99 |

## 5" Diagonal Wire Cutter

- Cuts component wire up to 1.2mm thick and 0.08mm fine wire
- Insulated handles
- Jaws are designed for flush cutting
- 5.0"L x 1.8"W w/ 0.5" cutting blade



| Part No. | Cross Ref. No.  | 1      | 10     | 25     |
|----------|---|--------|--------|--------|
| 161411   | Wire cutter  | \$7.49 | \$6.74 | \$6.07 |

## molex® Hand Tools for Mini-Fit™ Jr.



304928: Accepts wire range from 14-24 AWG



| Part No. | Product No.  | Description      | 1       | 5       |
|----------|--|------------------|---------|---------|
| 304928   | 63811-1000  | Crimp tool ..... | \$42.99 | \$41.33 |
| 304936   | 11-03-0044  | Extraction tool  | 19.99   | 18.99   |



## 5" Wire Cutter/Stripper

- Strips and cuts 20-24 AWG wires
- Insulated grips
- Spring loaded for easy use
- Cutter angled @ 45 degrees for use in tight places
- Size: 5.0"L x 3.0"W
- Blue Part No. = Limited Quantity Available





| Part No. | Product No.  | 1      | 10     | 50     | 100    |
|----------|--|--------|--------|--------|--------|
| 159273   | HT1091   | \$5.49 | \$4.94 | \$4.45 | \$4.00 |

## 5" Wire Cutter/Strippers

- Insulated handles
- Spring return
- Tempered steel cutting edge
- Size: 5.0"L x 3.0"W
- One-year warranty

78992: 10-30 AWG (screw adjustable)  
215889: 10-24 AWG (dial to adjust for wire gauge)






| Part No. | Cross Ref. No.   | 1      | 10     | 50     | 100    |
|----------|--|--------|--------|--------|--------|
| 78992    | HT108     | \$3.95 | \$3.49 | \$2.95 | \$2.59 |
| 215889   | JE-2022C  | 3.95   | 3.49   | 2.95   | 2.59   |



## 6" Wire Cutter/Strippers

- Plier nose
- Wire size markings, in AWG and mm
- Size: 6.0"L x 2.0"W
- 161226: Premium
  - 12-20 AWG stranded;
  - 10-18 AWG solid
  - Color: yellow
- 161234: Premium
  - 16-26 AWG stranded;
  - 14-24 AWG solid
  - Color: red
- 161218: Standard
  - 16-26 AWG stranded; 14-24 AWG solid
  - Color: red




| Part No. | Prod. No.  | Description           | 1       | 10      |
|----------|--|-----------------------|---------|---------|
| 161226   | ID45-215  | Cushioned grips ..    | \$16.75 | \$15.91 |
| 161234   | ID45-216  | Cushioned grips ..... | 17.79   | 16.91   |
| 161218   | ID45-121  | Non-cushioned grips   | 13.59   | 12.95   |



## 6.6" Wire Stripper

- Wire stripper, cutter, steel wire cutter, and wire loop
- Scale: AWG and mm
- Strips and cuts wires from 20-30 AWG
- Size: 6.6"L x 2.0"W

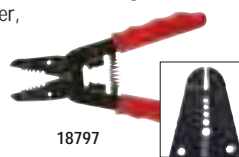





| Part No. | Product No.  | 1      | 10     | 50     |
|----------|--|--------|--------|--------|
| 159291   | HT5023  | \$9.95 | \$8.96 | \$8.06 |



## 7-in-1 Wire-Handling Tool

- Wire stripper, wire cutter, steel wire cutter, pliers and wire loop
- Solderless crimping tool
- Scale: mm and inch
- Size: 6.6"L x 3.0"W
- Blue Part No. = Limited Quantity Available



| Part No. | Prod. No.  | Description    | 1      | 10     | 50     |
|----------|--|----------------|--------|--------|--------|
| 18797    | HT1041  | 10-18AWG ...   | \$4.95 | \$4.49 | \$3.95 |
| 127862   | HT1042  | 16-26AWG ..... | 5.95   | 5.06   | 3.79   |
| 127870   | HT1043  | 22-30AWG ..... | 5.49   | 4.94   | 4.45   |

## Automatic Wire Stripper

- Spring load grip
- Size: 7.0"L x 2.5"W
- Weight: 0.8 lbs.

Includes: Wire stopper for desired strip length



| Part No. | Description   | 1       | 10      | 25      |
|----------|---|---------|---------|---------|
| 175098   | Strips 8-22 AWG  | \$16.95 | \$15.26 | \$13.73 |



## Rotary Coax Cable Strippers

### 2 and 3 Blade

159118 (3 Blade):

- 2 settings RG58/59/62
- For cable sizes 4-10mm
- Size: 4.2"L x 1.3"W
- Color: black





159185 (2 Blades): 4 settings RG58/59/62/174

- For cable sizes 4-12mm
- Size: 3.9"L x 0.7"W
- Color: gray



Includes: Hex key wrench for adjusting blade

| Part No. | Product No.  | 1       | 10      | 25      |
|----------|--|---------|---------|---------|
| 159118   | HT312B (3 blade)  | \$14.65 | \$13.19 | \$11.55 |
| 159185   | HT332D (2 blade)  | 13.95   | 12.56   | 11.30   |


## Crimp/Cut/Strip Tool

For RJ11 (6P) and RJ45 (8P) Modular Plugs

- Repeatable crimp action for consistent high-quality connections
- Push-down locking mechanism
- Size: 8.0"L x 2.0"W
- Weight: 0.8 lbs.



Includes: Cut and strip blade

| Part No. | Cross Ref. No.   | 1       | 10      |
|----------|--|---------|---------|
| 174684   | TTK071  | \$26.95 | \$24.26 |




## Telemaster Modular Connector Crimp/Cut/Strip Tool

For RJ11 (6P) and RJ45 (8P) Modular Plugs

- Repeatable crimp action for consistent high-quality connections
- Size: 6.0"L x 2.0"W
- Weight 0.8 lbs.



Includes: Cut and strip blade

| Part No. | Product No.  | 1       | 10      |
|----------|--|---------|---------|
| 161091   | ID30-496  | \$43.95 | \$39.95 |

## Ratchet Crimp Tool


For RJ11 (6P) and RJ45 (8P) Modular Plugs

- Repeatable crimp action for consistent high-quality connections
- Size: 8.5"L x 2.2"W
- Weight: 1.2 lbs.



Includes: Cut and strip blade

**Quantity SAVE**

| Part No. | Cross Ref. No.   | 1       | 10      |
|----------|--|---------|---------|
| 174676   | TTK070  | \$39.95 | \$29.96 |

## Professional Modular Connector Crimping Tool

- Spring return action
- 6mm and 12mm stripping guide
- Crimp modular plugs without changing dies
- Crimps 10P10C, RJ45: 8P8C, RJ11 and RJ12: 6P6C, and 4P4C
- Insulated handles • Size: 8.2"L • Weight: 1.2 lbs.



| Part No. | Product No. | 1       | 10      | 25      |
|----------|-------------|---------|---------|---------|
| 181147   | HT200       | \$54.95 | \$49.49 | \$44.55 |

## Modular Connector Crimping Tool Set

- 8" metal modular crimping tool
- Cuts, strips and crimps
- Crimps RJ11 and RJ45 plugs
- Carrying case: blue hard plastic, 8.0"L x 10.5"W x 2.0"H
- Weight: 2.1 lbs.



Lower \$\$\$

Includes: 90 modular plugs, 40 pcs. 4P4C, 30 pcs. 6P6C, 20 pcs. 8P8C

| Part No. | Product No. | 1       | 10      | 25      |
|----------|-------------|---------|---------|---------|
| 73496    | HT2000B     | \$74.95 | \$63.71 | \$59.07 |

## Metal Modular Connector Crimping Tool

- Cable stripper and wire cutter
- Size: 8.0"L
- Weight: 1.8 lbs.
- Crimps 6P and 8P plugs (6P2C, 6P4C, 6P6C, 8P2C, 8P4C, 8P6C, 8P8C)



Blue Part No. = Limited Quantity Available

| Part No. | Description | 1       | 10      | 25      |
|----------|-------------|---------|---------|---------|
| 114526   | RJ11/RJ45   | \$24.95 | \$22.49 | \$20.25 |

## Ratcheted BNC Crimping Tool

- Crimps RG58, RG59, RG62, RG174 and fiber optic
- Hex sizes: 0.043", 0.068", 0.100", 0.137", 0.213", 0.255"
- All steel construction
- Size: 8.5"L x 2.5"W • Weight: 1.1 lbs.



| Part No. | Product No. | 1       | 10      | 25      |
|----------|-------------|---------|---------|---------|
| 114535   | HT-336G     | \$23.95 | \$21.59 | \$19.45 |

## 5" Steel Hemostats

- Grade 410 A.I.S.I. stainless steel
- Three locking positions

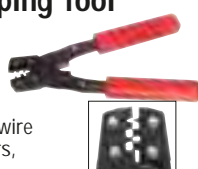


| Part No. | Cross Ref. No. | Description | 1      | 10     | 50     |
|----------|----------------|-------------|--------|--------|--------|
| 115107   | HEM01          | Straight    | \$3.49 | \$3.14 | \$2.83 |
| 115115   | HEM02          | Curved      | 3.95   | 3.56   | 3.20   |

## Non-Insulated Terminal D-Sub Crimping Tool

14-26 AWG

- Heavy-duty metal tool with cutter and insulated handles
- For computer pins and sockets, D-sub 26-28 AWG wire
- For butt-insulated connectors, 22-26 AWG wire
- For telephone spade lugs, 22-26 AWG wire
- For non-insulated connectors, 20-22 AWG wire
- For non-insulated connectors, 14-18 AWG wire
- Coiled spring return • Size: 7.3"L x 1.5"W



| Part No. | Product No. | 1      | 10     | 25     | 100    |
|----------|-------------|--------|--------|--------|--------|
| 99443    | HT202A      | \$9.49 | \$8.55 | \$7.69 | \$6.95 |

## D-Sub Crimping Tool

20-28 AWG

- Crimps D-sub pins and sockets
- For use w/ P/Ns 43377, 43369, pg 120 & 100766, pg 141
- Size: 7.0"L x 4.0"W



| Part No. | Product No. | 1       | 10     | 25     |
|----------|-------------|---------|--------|--------|
| 159266   | HT213       | \$10.95 | \$9.89 | \$8.89 |

## Nibbling Tool

- Perfect for cutting, trimming, or notching sheet metal up to 18 AWG
- Time-saver when working on prototyping, chassis, and circuit boards
- Minimum .375" hole required
- Size: 7.8"L



| Part No. | Prod. No. | Description     | 1      | 10     | 25     |
|----------|-----------|-----------------|--------|--------|--------|
| 18810    | HT204     | Nibbling tool   | \$7.95 | \$7.16 | \$6.44 |
| 29331    | HT204B    | Replacement bit | 4.49   | 4.04   | 3.64   |

## Ratcheted Modular Connector Crimping Tool

- Insulated grip
- Ratcheted type
- Metal • 7.5"L
- Crimps RJ45 (8P8C) and RJ11/12 (6P6C)
- Weight: 0.7 lbs.



| Part No. | Description | 1       | 10      | 25      |
|----------|-------------|---------|---------|---------|
| 159312   | RJ45/11/12  | \$21.95 | \$19.95 | \$17.95 |

## 9-in-1 Pocket Multi-Tool

- Bottle opener
- Flashlight
- Nail pick
- 2 handyman/long-nose pliers
- Phillips screwdriver
- Metal file
- Knife blade
- Wire cutter
- Folded: 2.75"L

SALE



| Part No. | Description              | 1      | 10     | 5 |
|----------|--------------------------|--------|--------|---|
| 227264   | 9-in-1 pocket multi-tool | \$2.59 | \$2.35 |   |

## Connector Compression

Designed to compress ferrules of "F" /BNC/ RCA connectors. Black oxide steel frame with interchangeable die sockets, ratchet mechanism with manual release disengages after a complete cycle securing a fully compressed ferrule. Integrated coax cutter for cutting cables to appropriate lengths.



| Part No. | Description            | 1       | 5       |
|----------|------------------------|---------|---------|
| 261761   | Compression multi-tool | \$34.95 | \$31.45 |

## "F" Connector Compression Tool

Compresses RG-6 and RG-59 Snap-N-Seal type connectors.

- Length: 5"



| Part No. | Description      | 1       | 5       |
|----------|------------------|---------|---------|
| 261753   | Compression tool | \$29.95 | \$28.45 |

## 25-Piece Hex Key Set

- 12-piece SAE long arm with sizes from 1/16" to 3/8"
- 13-piece Metric short arm with sizes from 1.5mm to 1cm



| Part No. | Description | 1      | 5      |
|----------|-------------|--------|--------|
| 261825   | Hex key set | \$6.95 | \$6.59 |

## Automatic Center-Punch Tool

Adjustable

- Precision instrument
- Alloy steel point
- Knurled steel body • Size: 5.0"L x 0.5"Dia.



| Part No. | Description       | 1      | 10     | 50     |
|----------|-------------------|--------|--------|--------|
| 160282   | Center punch tool | \$5.95 | \$5.39 | \$4.85 |

## T-Handle Reamer Tool

Excellent for aluminum chassis work

- For enlarging starter holes on panel mount components from 1/8" to 1/2" diameter
- T-handle for easy rotation of tool
- Handle: 3.3" long, tool: 5.3" long



| Part No. | Description     | 1      | 10     | 25   |
|----------|-----------------|--------|--------|------|
| 151750   | T-handle reamer | \$7.95 | \$7.49 | 6.95 |

## Deluxe Precision Knife Set

- Three different knife handles – fine work, medium and heavy duty power grip
- Size: 6.3"L x 2.8"W x 1.4"H

Includes: 13 types of blades



| Part No. | Description        | 1       | 10     | 25     |
|----------|--------------------|---------|--------|--------|
| 72768    | 13 blade knife set | \$10.95 | \$9.86 | \$8.87 |

Over 99% of Our Catalog Products Are In Stock

Place your order by 6PM EST for same business-day shipment.



## 4-Piece Adjustable Wrench Set

Heavy-duty carbon steel wrenches with black industrial finish. Constructed with rugged I-beam handle and four-sided jaw design for better fit and strength.

- Length x jaw opening: 12" x 1<sup>3</sup>/<sub>16</sub>"; 10" x 1<sup>1</sup>/<sub>16</sub>"; 8" x 1"; 6" x 1<sup>1</sup>/<sub>16</sub>"



| Part No. | Description           | 1       | 5      |
|----------|-----------------------|---------|--------|
| 261711   | Adjustable wrench set | \$11.05 | \$9.90 |

## 2-Piece Tweezer Set

- PVC insulated handles
- Serrated tips for parts handling
- Bent tip and straight rounded tip (wide tip)
- Length: 5.8"



| Part No. | Description | 1      | 10     | 25     |
|----------|-------------|--------|--------|--------|
| 253180   | Tweezer set | \$2.59 | \$2.33 | \$2.09 |

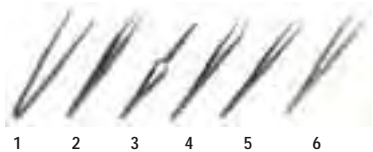
## 4-Piece Steel Tweezer Set



- 4 styles of stainless steel tweezers, one self-locking
- Ideal for picking up small components in hard-to-reach places

| Part No. | Description         | 1      | 10     | 50     |
|----------|---------------------|--------|--------|--------|
| 10735    | 4-piece tweezer set | \$7.95 | \$6.95 | \$5.95 |

## Tweezers



- 253163: Straight, round tapered, wide-point tip  
 252929: Straight round tapered, fine-point tip, stainless steel  
 252937: Self-closing reverse-action tweezers; medium point tip; stainless steel  
 253092: Curved fine-point tip  
 252911: Straight fine-point tip  
 253112: Fine-point tip, insulated, anti-static

| Part No. | Length | Photo | 1      | 10     | 25     |
|----------|--------|-------|--------|--------|--------|
| 253163   | 4.5"   | 1     | \$0.89 | \$0.79 | \$0.73 |
| 252929   | 4.75"  | 2     | 2.25   | 1.99   | 1.79   |
| 252937   | 4.3"   | 3     | 2.25   | 1.99   | 1.79   |
| 253092   | 4.6"   | 4     | 2.25   | 1.99   | 1.79   |
| 252911   | 4.75"  | 5     | 2.25   | 1.99   | 1.79   |
| 253112   | 4.75"  | 6     | 2.25   | 1.91   | 1.43   |

## Strip-Wrap-Unwrap Tool

- Tool tip made of tempered steel
- Spring steel cutter
- Use with 30 AWG wire on .025" square posts
- No solder necessary, see pg 104 for wire
- Wrap 1 to 2 turns of insulated portion of wire for secure connections • 4.5" long



| Part No. | Cross Ref. No.   | 1       | 10      | 25      |
|----------|------------------|---------|---------|---------|
| 34585    | HSM30 (Modified) | \$49.99 | \$44.99 | \$39.99 |
| 236785   | HSR30 (Regular)  | 30.55   | 25.97   | 19.47   |

## 30 AWG Wire Wrap/Strip Tools

Recommended for use on 0.025" (0.63mm) square posts on 0.100" (2.54mm) center grids. The first 1-1/2 loop on the modified tool has wire insulation while all loops on a regular tool have bare wires.

- Knurled handle for easy grip
- 5" long



| Part No. | Description               | 1       | 10      | 25      |
|----------|---------------------------|---------|---------|---------|
| 242801   | Tool (regular)            | \$19.95 | \$18.49 | \$15.95 |
| 242798   | Tool (modified)           | 21.95   | 19.95   | 17.15   |
| 242835   | Replace stripper assembly | 5.49    | 4.67    | 3.50    |

## Digital Display Calipers

## Metric and Inches

- Hardened stainless steel
- Display: inches to 0.001; mm to 0.01
- Instructions for making internal, external, depth & step measurements
- Calipers measure to 6 inches/150mm
- One-year warranty



Quantity SAVE

**Includes:** Fitted case and 1.5V silver oxide battery (replacement battery, P/N 140783, pg 250)

| Part No. | Description            | 1       | 10      | 25      |
|----------|------------------------|---------|---------|---------|
| 127482   | Digital disp. calipers | \$64.95 | \$55.21 | \$41.41 |

## Metal Dial Calipers

## Choose Metric or Inches

- For accurate measurements every time
- Measures outside, inside and depth
- Easy-to-read dial gauge
- Length: 6" (150mm)
- Materials: metal
- Color: silver



**Includes:** Fitted plastic storage case

| Part No. | Description (min. reading) | 1       | 10      | 25      |
|----------|----------------------------|---------|---------|---------|
| 116134   | Metric (.02 mm)            | \$29.95 | \$26.96 | \$24.26 |
| 116126   | Inches (.001 inch)         | 29.95   | 26.96   | 24.26   |
| 684449   | Metric/Inches              | 43.75   | 39.35   | 35.41   |

## Impact Punch-Down Tools

- Reversible clip-in blade
- Adjustable (HI-LO) spring-loaded impact mechanism
- Storage bin on handle for spare blade

## 175071: Tool with blade

- For 66-type terminals
- Size: 5.2"L x 1.5"W x 1.0"H

## 324013: Tool with blade

- For 110-type terminals
- Size: 5.8"L x 1.7"W x 1.2"H

## 175089: Punch-down blade 110-type terminals

| Part No. | Description          | 1       | 10      |
|----------|----------------------|---------|---------|
| 175071   | Tool with 66 blade   | \$34.95 | \$31.46 |
| 324013   | Tool with 110 blade  | 37.39   | 28.04   |
| 324021   | Punch-down blade 66  | 14.95   | 13.49   |
| 175089   | Punch-down blade 110 | 14.95   | 13.49   |



## IC Pin Straightener

Straighten bent pins safely and easily with Jameco's IC pin straightener.

- Straightens 8/14/16/18/20/24/28/40/42-pin ICs
- Materials: black plastic
- Size: 3.3"L x 1.5"W x 0.4"H

**Includes:** Ground terminal

| Part No. | Description     | 1      | 10     | 100    |
|----------|-----------------|--------|--------|--------|
| 99363    | IC straightener | \$6.95 | \$6.26 | \$5.63 |



## The Right Tool for the Job

OK, so why cut corners when you're punching down cables, stripping insulation or crimping wires? Little nicks in the insulation can creep and become big reliability problems later on. Not good for referral and repeat business.

When you think about the cost to get a customer in the first place, you realize you can't afford to lose any of them, particularly to risks that can be substantially reduced at a relatively low cost. Plus, in the business world, you rarely use a tool for just one job, so the amortized cost can be really low.

**Practical Practices**  
Money Saving Tips for the Engineer



Jameco's Got  
The Docs

We offer free technical documents for most of the products we carry. Find them easily on the product specification pages at [www.Jameco.com](http://www.Jameco.com)

## 3X, 3-Bulb Magnifying Lamp

Adjustable rectangular 3-diopter lens allows independent movement of the lens for best lighting and viewing angles. Three 9-watt compact fluorescent bulbs located to the side and top of the lens provide superior lighting to your workspace or job at hand. The integral spring-balance arm reduces the chance of pinched hands from springs, and provides a sleek clean look.

- 47" long arm
- 2 on/off buttons
- Color: beige
- UL listed
- Weight: 8.15 lbs.

| Part No. | Description               | 1       | 10      | 25      |
|----------|---------------------------|---------|---------|---------|
| 217517   | Adj. magnifying lamp .... | \$79.95 | \$74.95 | \$69.95 |

## 3X Magnifying Lamps

- 45" extension arm
- Supplied with 22-watt circuline tube
- New wire clip design permits easy installation
- Extra strong, all-metal mounting base with electrical outlet
- Metal bulb holder for extra protection
- Power req.: 110VAC/60Hz
- 3-diopter lens
- Weight: 7.3 lbs.

| Part No. | Description      | 1       | 10      | 25      |
|----------|------------------|---------|---------|---------|
| 100829   | Black lamp ..... | \$59.95 | \$53.95 | \$49.95 |
| 149981   | White lamp ..... | 59.95   | 53.95   | 49.95   |

## Standard Adjustable 3X Magnifying Lamp

- 4" Diameter lens
- Maneuverable 30" arm extension
- Lamp tilts & turns in any direction
- Uses 60W incandescent bulb (not included)
- Power requirement: 110VAC/60Hz
- 3-diopter lens
- Weight: 2.9 lbs.

| Part No. | Description           | 1       | 10      | 25      |
|----------|-----------------------|---------|---------|---------|
| 22710    | Magnifying lamp ..... | \$26.49 | \$25.19 | \$23.89 |

## Precision 5 Diopter Magnifying Lamp

The arm extends to 40", is adjustable to any direction or angle, and has a 5 diopter. This is the perfect tool to help identify small electronic components and magnify a printed circuit board to help solder electronic components.

- 5" diameter lens
- Weight: 7.1 lbs.
- Power requirement: 110VAC/60Hz

**Includes:** 22W circuline fluorescent bulb

| Part No. | Description     | 1        | 10      | 25      |
|----------|-----------------|----------|---------|---------|
| 197456   | Magnifying lamp | \$109.95 | \$98.95 | \$88.95 |

## Vacuum Tweezers

Pick & place small parts of all kinds: glass slides, coins, optics, SMDs, film, etc.

- Size: 2.9"L x 0.6"W
- One-year warranty

**Includes:** 5 pads sizes 0.14" to 0.4"; 5 straight tips and 2 pieces 45° angle tips

| Part No. | Description             | 1       | 10      |
|----------|-------------------------|---------|---------|
| 88268    | Vacuum pick & place kit | \$32.95 | \$29.65 |

## 4-Piece Conductive SMD Tweezer Set



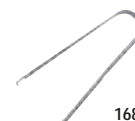
- 4 types of tweezers: fine point, flat head for 4mm SMD chip device, flat head for 8mm SMD chip device, sharp angled tip
- Each is 4.5" long

| Part No. | Description         | 1       | 10      | 25     |
|----------|---------------------|---------|---------|--------|
| 172638   | 4-piece tweezer set | \$11.95 | \$10.95 | \$9.95 |

## PLCC Surface Mount and DIP IC Extractors



16766



16838

- Size: 4.0"L x 2.0"W (both)

| Part No. | Product No. | Description | 1      | 10     | 100    |
|----------|-------------|-------------|--------|--------|--------|
| 16766    | HT103B      | PLCC ...    | \$3.95 | \$3.55 | \$3.19 |
| 16838    | HT103A      | DIP .....   | 1.49   | 1.25   | 1.09   |

## 30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 322.

## Anti-Static Equipment

### Anti-Static Plastic DIP IC Storage Tubes and Rubber Rail Stops

29516:

Thin tube (rail) fits 8, 14, 16, 18, 20 and 22-pin integrated circuits. • Length: 23.75"

29583:

Rubber stops used to plug plastic rail ends



\* Prepackaged: please order in increments of 10

| Part No. | Cross Ref. No. | Description        | 1      | 10     | 100    |
|----------|----------------|--------------------|--------|--------|--------|
| 29516    | RIC20          | Thin rail .....    | \$ .49 | \$ .44 | \$ .40 |
| 29583    | RRS            | Rubber stop .... * | .08    | .06    |        |

### Protective Coiled Grounding Wrist Strap

- Comfortable, adjustable Velcro wrist strap
- The coiled cord has banana plug and alligator clips
- Extended cord: 9' long
- Color: black

**Includes:** 1MΩ resistor for added safety

| Part No. | Description       | 1      | 10     | 100    |
|----------|-------------------|--------|--------|--------|
| 34552    | Anti-static strap | \$6.49 | \$5.85 | \$5.29 |

### Conductive Anti-Static Foam and Bags

**Don't get zapped!**

Protect your investment with these inexpensive bags and ensure a safe work area with our conductive anti-static foam.

13864: 24.0"L x 12.0"W x 0.25"H

| Part No. | Description               | 1      | 5      |
|----------|---------------------------|--------|--------|
| 13864    | Anti-static foam          | \$9.29 | \$8.35 |
| 78650    | 8" x 10" anti-static bags | .69    | .59    |

### Anti-Static Heel Strap

- Discharges static without restricting your mobility
- Ideal for anyone handling static sensitive devices
- Ground strap: 15.5"L

| Part No. | Description | 1      | 10     | 100    |
|----------|-------------|--------|--------|--------|
| 100327   | Heel strap  | \$5.49 | \$4.99 | \$4.55 |

We're Listening to  
Your Requests

Email us 24/7 at [NewProducts@Jameco.com](mailto:NewProducts@Jameco.com)  
with suggestions for products  
you'd like to see in future catalogs.

## 45-Watt Analog Display Soldering Station

### Grounded Soldering Tip

- 500°F to 850°F • Fully grounded
- Insulated ceramic heating element for rapid heat-up and heat recovery
- Heater insulation exceeds 100MΩ
- Zero voltage circuitry eliminating high voltage spike and magnetic field generation
- Size: 7.0"L x 4.5"W x 3.5"H • Weight: 2.5 lbs.

**Includes:** Manual, soldering iron w/ 1/32" tip, stand, tip cleaner and sponge

| Part No. | Product No. | Description                    | 1       | 10      | 25      |
|----------|-------------|--------------------------------|---------|---------|---------|
| 229673   | XYT379-C    | 45-Watt soldering station      | \$59.95 | \$53.95 | \$48.95 |
| 156814   | XYB01       | Sharp conical chisel 1/32" tip | 4.95    | 4.49    | 3.95    |
| 156822   | XYB04       | Conical chisel 1/16" tip       | 4.95    | 4.49    | 3.95    |
| 134631   | SP715       | Replacement sponge             | 2.99    | 2.69    | 2.49    |

## 60-Watt Soldering Stations

Designed for soldering situations where precise temperature is required for sensitive components.

- Temperature is maintained at ±6°F
- Electronic temperature control from 392° to 878°F
- External calibration port
- CMOS devices protected against voltage spikes
- Power-on and heater-on LED indicators
- Size: 5.1"W x 8.0"D x 4.0"H • Weight: 4.8 lbs.

**Includes:** One 1/16" tip (P/N 35115 – below)

| Part No. | Product No. | Description                          | 1        | 10      | 25      |
|----------|-------------|--------------------------------------|----------|---------|---------|
| 236101   | XY9-60D/ESD | Digital soldering station – ESD safe | \$109.95 | \$99.95 | \$89.95 |
| 219627   | XY9-60A     | Analog soldering station             | 99.95    | 89.95   | 79.95   |
| 168401   | TWZ50ESD    | SMD tweezer iron w/ 0.078" tip       | 74.95    | 67.46   | 60.71   |
| 168583   | 46-060102   | Tip .078" for P/N 168401             | 11.95    | 10.79   | 9.69    |
| 168591   | 46-060115   | Tip .590" for P/N 168401             | 12.95    | 11.69   | 10.49   |
| 236460   | 78-744615   | Replacement sponge for both stations | 2.99     | 2.69    | 2.49    |

## 60-Watt Desoldering & Solder/Desoldering Stations



125508

125516

- Simple fine tune feature to select within 300–850°F range
- Vacuum pump activated "on demand" using finger tip switch on desolder handle
- CMOS devices protected against voltage spikes

**125508:**

- Size: 9.2"L x 7.2"W x 3.6"H
- Weight: 13.1 lbs.

**Includes:** XYD12 tip and solder holder

**125516:**

- Size: 11"L x 10"W x 4.0"H; Wt.: 18.1 lbs.

**Includes:** XYD12 tip, solder holder, tip cleaner and tweezers

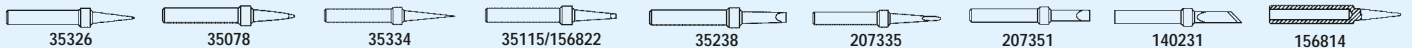
**Special 5% Bundle Savings**  
 Complete ISO 9000 digital station –  
 P/N 236101 & 125508  
 Sold separately \$409.90  
 Combined: P/N 207263  **\$388.95**



















| Part No. | Product No. | Description                         | 1        | 10       | 25       |
|----------|-------------|-------------------------------------|----------|----------|----------|
| 125508   | 968         | Desoldering station                 | \$299.95 | \$269.99 | \$242.99 |
| 125516   | 988         | Solder/desoldering station          | 399.95   | 359.99   | 323.99   |
| 207271   | TWZ60ESD    | SMD tweezer iron with .078" tip     | 69.95    | 62.95    | 56.95    |
| 207221   | D1A60A      | Replacement desoldering iron        | 74.95    | 63.71    | 58.20    |
| 168583   | 46-060102   | Tip .078" for P/N 207271            | 11.95    | 10.79    | 9.69     |
| 168591   | 46-060115   | Tip .590" for P/N 207271            | 12.95    | 11.69    | 10.49    |
| 236460   | 78-744615   | Replacement sponge for all stations | 2.99     | 2.69     | 2.49     |

### Replacement Sponges for Legacy Models

| Part No. | Product No. | For Station                 | 1      | 10     | 100           |
|----------|-------------|-----------------------------|--------|--------|---------------|
| 134640   | SP815       | 168-3C                      | \$2.99 | \$2.55 | <b>\$1.95</b> |
| 134631   | SP715       | XY-60D, XY-379 & P/N 229673 | 2.99   | 2.69   | 2.49          |

## Tips & Replacement Parts for XYTronic Soldering and Desoldering Products





|          |                |  | For XYTronic Model Numbers (*Legacy Models) |        |      |               |     |                        |       |     |     |        |        |        |         |        |        |        |
|----------|----------------|--|---|--------|------|---------------|-----|------------------------|-------|-----|-----|--------|--------|--------|---------|--------|--------|--------|
| Part No. | Cross Ref. No. | Description  | 239VL                                       | 136ESD | 168* | 200CX, 200PHG | 379 | 4ESD*<br>XY60A<br>7ESD | 960D* | 968 | 988 | 99PSD* | JSD28* | 168-3C | Pricing |        |        |        |
|          |                |  |   |        |      |               |     |                        |       |     |     |        |        |        | 1       | 10     | 25     |        |
| 35326    | XY401          |  Soldering tip - conical bevel 1/32"        | ✓   |        |      | ✓             | ✓   |                        | ✓     | ✓   |     |        | ✓      | ✓      | ✓       | \$4.49 | \$3.95 | \$3.65 |
| 35078    | XY402          |  Soldering tip - semi-chisel 1/32"          | ✓   |        |      | ✓             | ✓   |                        | ✓     | ✓   |     |        | ✓      | ✓      | ✓       | 4.49   | 3.95   | 3.65   |
| 35334    | XY403          |  Soldering tip - conical sharp 1/64"        | ✓   |        |      | ✓             | ✓   |                        | ✓     | ✓   |     |        | ✓      | ✓      | ✓       | 4.49   | 3.95   | 3.65   |
| 35115    | XY404          |  Soldering tip - conical chisel 1/16"       | ✓   |        |      | ✓             | ✓   |                        | ✓     | ✓   |     |        | ✓      | ✓      | ✓       | 4.49   | 3.95   | 3.65   |
| 35238    | XY405          |  Soldering tip - semi-chisel wide 1/8"      | ✓   |        |      | ✓             | ✓   |                        | ✓     | ✓   |     |        | ✓      | ✓      | ✓       | 4.49   | 3.95   | 3.65   |
| 207335   | XY406          |  Soldering tip - long conical chisel 3/64"  | ✓   |        |      | ✓             | ✓   |                        | ✓     | ✓   |     |        | ✓      | ✓      | ✓       | 2.95   | 2.69   | 2.39   |
| 207351   | XY410          |  Soldering tip - chisel 3/16"               | ✓   |        |      | ✓             | ✓   |                        | ✓     | ✓   |     |        | ✓      | ✓      | ✓       | 2.95   | 2.69   | 2.39   |
| 140231   | XY430          |  Soldering tip - SMD flat pack 7/32"        | ✓   |        |      | ✓             | ✓   |                        | ✓     | ✓   |     |        | ✓      | ✓      | ✓       | 8.95   | 7.95   | 7.25   |
| 156814   | XYB01          |  Soldering tip - sharp conical chisel 1/32" |   | ✓      |      |               |     | ✓                      |       |     |     | ✓      |        |        |         | 4.95   | 4.49   | 3.95   |
| 207327   | XYB03          |  Soldering tip - conical sharp 1/64"        |   |        | ✓    |               |     | ✓                      |       |     |     | ✓      |        |        |         | 4.95   | 4.49   | 3.95   |
| 156822   | XYB04          |  Soldering tip - conical chisel 1/16"       |   |        | ✓    |               |     | ✓                      |       |     |     | ✓      |        |        |         | 4.95   | 4.49   | 3.95   |
| 207298   | XYB05          |  Soldering tip - semi-wide chisel 1/8"      |   |        | ✓    |               |     | ✓                      |       |     |     | ✓      |        |        |         | 4.95   | 4.49   | 3.95   |
| 207319   | XYB30          |  Soldering tip - wedge blade 3/16"          |   |        | ✓    |               |     | ✓                      |       |     |     | ✓      |        |        |         | 8.95   | 7.65   | 5.75   |
| 35297    | XY37           |  Heating element - (nichrome)               |   |        |      | ✓             | ✓   |                        | ✓     |     |     |        | ✓      |        | ✓       | 20.95  | 18.95  | 16.95  |
| 35318    | XY48           |  Assembly - 60W w/ nichrome heater          |   |        |      | ✓             | ✓   |                        | ✓     |     |     |        | ✓      |        | ✓       | 30.95  | 27.95  | 24.95  |
| 127634   | XYD10          |  Desoldering tip - 1.0mm (.0394")           |   |        |      |               |     |                        |       | ✓   | ✓   | ✓      | ✓      |        |         | 8.95   | 7.95   | 7.25   |
| 127642   | XYD12          |  Desoldering tip - 1.2mm (.0472")           |   |        |      |               |     |                        |       | ✓   | ✓   | ✓      | ✓      |        |         | 8.95   | 7.95   | 7.25   |
| 127651   | XYD15          |  Desoldering tip - 1.5mm (.0586")           |   |        |      |               |     |                        |       | ✓   | ✓   | ✓      | ✓      |        |         | 8.95   | 7.95   | 7.25   |



Test/Tools

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Find products quickly and order them easily.

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

Color Code Legend  
**New** **Sale** **Lower\$** **QtySave**

Order 24/7 Toll Free 1-800-831-4242

295



## Weller® 40-Watt Soldering Station

- Lighted on/off switch
- Adjustable power from 5 watts to 40 watts
- 120V @ 60Hz
- Temp. is electronically controlled from 350° to 850°F
- Size: 5.5"L x 4.5"W x 3.5"H • Weight: 1.9 lbs.

Includes: ST3 1/8" screwdriver tip and manual

| Part No. | Prod. No. | Description       | 1       | 10      |
|----------|-----------|-------------------|---------|---------|
| 146595   | WLC100    | Soldering station | \$46.39 | \$44.06 |

## Weller® Soldering Tips

Replacement Tips for WLC100, WP25 & WP23

| Part No. | Prod. No. | Description           | 1      | 10     |
|----------|-----------|-----------------------|--------|--------|
| 146608   |           |                       |        |        |
| 146616   |           |                       |        |        |
| 146624   |           |                       |        |        |
| 146608   | ST1       | Screwdriver tip 1/16" | \$5.45 | \$4.86 |
| 146616   | ST3       | Screwdriver tip 1/8"  | 5.45   | 4.86   |
| 192145   | ST6       | Screwdriver tip .031" | 5.54   | 4.86   |
| 146624   | ST7       | Conical tip 1/32"     | 4.45   | 4.26   |

## Weller® 42-Watt Controlled-Output Soldering Station

- Transformer powered soldering station complete with macro style, low voltage, temp. controlled soldering iron
- Closed loop method of controlling maximum tip temperature for protection of temperature sensitive components • 120VAC @ 60Hz input
- Power unit housing features impact resistant plastic for durability
- Quick disconnect plug for soldering iron and lighted on/off switch
- Separate conductor grounds iron tip and terminates third pin of power cord • Uses PT series tips
- Size: 5.9"L x 4.5"W x 3.6"H • Weight: 4.0 lbs.

Includes: Soldering iron and PTA7 tip (below)

| Part No. | Prod. No. | Description                   | 1        | 10       |
|----------|-----------|-------------------------------|----------|----------|
| 170552   | WTCP      | Solder station                | \$135.95 | \$129.95 |
| 192161   | TC201T    | Replac. iron                  | 72.69    | 69.23    |
| 192170   | PTA6      | .062" screwdriver tip (600°F) | 5.75     | 5.46     |
| 192188   | PTA7      | .062" screwdriver tip (700°F) | 5.69     | 5.15     |
| 192196   | PTA8      | .062" screwdriver tip (800°F) | 5.69     | 5.15     |

## Weller® 60-Watt Analog Display Soldering Station

- Maintains a steady temperature using a cartridge heating element, providing a longer life for the solid soldering tip.
- Electronic temperature control: 300°F to 850°F
- CMOS devices protected against voltage spikes
- Size: 4.3"W x 6.0"D x 3.4"H • Weight: 4.1 lbs.

Includes: One 1/16" tip (P/N 35115, pg 295)

236460: Replacement sponge

| Part No. | Product No. | 1       | 10      | 25      |
|----------|-------------|---------|---------|---------|
| 236110   | 168-3C      | \$89.95 | \$79.95 | \$72.95 |
| 236460   | 78-744615   | 2.99    | 2.69    | 2.49    |

## 50-Watt Analog & Digital Display Soldering Stations

Innovative heater and sensor combination for quick heat-up and rapid temperature recovery.

- Tip temperature offset capability allows user to reset temperature readings to match tip size and style
- Wireless temp. lockout
- Auto power-down after 90 minutes of inactivity
- Temperature range: 350°F to 850°F
- Temp. accuracy: ±9.0°F • ESD safe
- Size: 5.9"L x 4.5"W x 3.6"H • Weight: 4.0 lbs.

Includes: PES51 50W soldering iron with ETA tip, PH50 stand and sponge, and adjustment tool

| Part No. | Product No. | Description | 1        | 10       |
|----------|-------------|-------------|----------|----------|
| 217461   | WES51       | Analog      | \$115.95 | \$105.95 |
| 233533   | WESD51      | Digital     | 158.95   | 150.99   |

## Weller® Soldering Tips

Replacement Tips for WES51 & WESD51

| Part No. | Prod. No. | Description              | 1      | 10     |
|----------|-----------|--------------------------|--------|--------|
| 16774    | ETA       | Screwdriver 1/16"        | \$6.95 | \$6.25 |
| 16782    | ETJ       | Long screwdriver 1/32"   | 6.95   | 6.25   |
| 16803    | ETR       | Narrow screwdriver 1/16" | 5.85   | 5.56   |
| 16811    | ETS       | Long conical 1/64"       | 5.85   | 5.56   |

## SMD Tweezer Iron

- Maximum efficiency ceramic heating elements insures rapid heat-up and instant heat recovery
- Max. temp.: 760°F • 120VAC
- Heater insulation exceeds 100MΩ
- Heater power consumption: 35W ea.

Includes: 0.095" tip

| Part No. | Description  | 1       | 10      | 25      |
|----------|--------------|---------|---------|---------|
| 168410   | Tweezer iron | \$59.95 | \$53.95 | \$48.95 |
| 168583   | Tip .078"    | 11.95   | 10.79   | 9.69    |
| 168591   | Tip .590"    | 12.95   | 11.69   | 10.49   |

## velleman

## 3-in-1 Lab Center

Your space saving lab solution! Everything you need in one unit.

Digital Multimeter:

- 3-1/2 backlit LCD
- DC voltage ranges: 200mV to 600V
- AC voltage ranges: 200V to 600V
- Resistance ranges: 200Ω to 2MΩ
- Automatic polarity indication
- Data hold function and buzzer
- DC current ranges: 200μA to 10A
- Diode, transistor and continuity tester

Regulated Power Supply:

- Selectable output voltages: 3 to 4.5; 6 to 7.5; 9 to 12VDC
- LED overload and power indicators

Soldering Station:

- 48W ceramic heating element with temperature sensor
- Temperature range: 150°C to 450°C

Includes: Test leads, user manual, sponge, spare bit for soldering iron and 9V battery for DMM

| Part No. | Product No. | Description  | 1        | 5        |
|----------|-------------|--|----------|----------|
| 695025   | LAB1        | 3-1/2 digital multimeter, regulated power supply and soldering station | \$172.95 | \$163.97 |



## ESD-Safe, Lead-Free Soldering Station

The ideal tool for service and repair technicians as well as production line soldering operators.

- Specifically designed for RoHS-compliant soldering
- ±3°C temp. stability • 100W, 115/230VAC 50/60Hz
- Temperature adjustable 0-45°C (0-85°F)
- 24VAC Hi-Recovery nichrome heating
- Auto power down idle circuitry, 15-min non-operation
- 45 second ramp time to max temp setting
- Full digital LED readout in both °C and °F
- Easy external calibration port
- Slimline ergonomic pencil design for maximum dexterity and comfort
- Revolutionary "Zero Voltage" electronic switching design protects voltage and current-sensitive components against damaging current and transient voltage spikes
- Pb-free (lead-free) soldering application qualified
- Size: 6.1"W x 6"D x 4"H • Weight: 8.0 lbs.

| Part No. | Description               | 1        | 5        |
|----------|---------------------------|----------|----------|
| 667551   | LF-1000 soldering station | \$199.95 | \$179.95 |

## Weller® Soldering Tips

Replacement Tips for WSL

| Part No. | Prod. No. | Description      | 1       | 5       |
|----------|-----------|------------------|---------|---------|
| 233576   |           |                  |         |         |
| 233550   |           |                  |         |         |
| 233541   |           |                  |         |         |
| 233576   | NT1X      | 0.8mm bent round | \$10.85 | \$10.17 |
| 233550   | NTA       | 0.6mm chisel     | 8.95    | 8.43    |
| 233541   | NT1       | 0.25mm micro     | 8.95    | 8.44    |



## SMD Rework Station

- High-performance, inexpensive, versatile
- Adjustable temp.: 250-450°C (482-842°F)
- Long-life ceramic heating element
- Rapid heat-up and recovery
- Thermocouple sensor for stable temperature
- Size: 7.4"L x 5.0"W x 3.3"H
- 40W station, 25W ceramic element • Weight: 2.6 lbs

Includes: Base power unit, sponge, stand, surface mount tweezer iron, and stand for tweezers

| Part No. | Description    | 1       | 10      | 25      |
|----------|----------------|---------|---------|---------|
| 224629   | Rework station | \$89.95 | \$80.99 | \$72.85 |
| 168583   | .078" tip      | 11.95   | 10.79   | 9.69    |
| 168591   | .590" tip      | 12.95   | 11.69   | 10.49   |






## 16 to 30-Watt Variable Soldering Iron, Stand & Sponge

116572:  
 • Length: 7.5"

- 36329:  
 • Black anodized steel base – 5.3"L x 3.3"W  
 • See below for replacement sponge (P/N 134631)  
 • Fits most soldering irons .85" diameter

Includes: Sponge

| Part No. | Description  | 1       | 10      | 100     |
|----------|--|---------|---------|---------|
| 116572   | Soldering iron  | \$16.95 | \$15.29 | \$13.75 |
| 36329    | Soldering stand  | 4.95    | 4.46    | 4.01    |
| 134631   | Sponge (for P/N 36329)   | 2.99    | 2.69    | 2.49    |




## Thermally Balanced 25-Watt Soldering Iron

The XY200GX is a thermally balanced soldering iron for the professional or hobbyist.

- 120VAC; 6' cord
- 25-watt power consumption
- Interchangeable tips (pg 295)
- UL listed
- Length: 8.0"
- One-year warranty

Includes: 1.6mm conical tip




| Part No. | Description  | 1       | 10     | 25     |
|----------|--|---------|--------|--------|
| 129040   | 25W solder. iron  | \$11.49 | \$9.77 | \$7.32 |



## High-Quality 25-Watt & 35-Watt Soldering Irons

- Interchangeable heater elements
- Lightweight handle with cushioned grip
- Quick change knurled collar
- Length: 9"
- 120VAC @ 60Hz



Includes: Power cord & ST3 tip (pg 296)

| Part No. | Product No.  | Description       | 1       | 10      |
|----------|--|-------------------|---------|---------|
| 170587   | WP25  | 25W solder iron   | \$32.95 | \$31.35 |
| 192102   | WP35  | 35W solder iron   | 39.95   | 35.95   |
| 192153   | PH25  | Solder iron stand | 17.59   | 16.95   |

## Weller® 100-Watt Soldering Iron


- "Closed loop" method of controlling max. tip temperature
- Nominal heat-up time with 700°F tip is 110 seconds
- 120VAC @ 60Hz input
- Length: 6"
- Weight: 0.7 lbs.

Includes: CT6F7 (0.375" screwdriver tip; 700°F)

| Part No. | Prod. No.  | Description      | 1       | 5       |
|----------|--|------------------|---------|---------|
| 192081   | W100PG  | Solder iron      | \$62.95 | \$59.79 |
| 192090   | CT6F7   | .375" scrdvr tip | 8.59    | 7.75    |

## Vacuum Pen Tools



- ESD safe body
- Picks up components with weight of 1.1 lbs. or less

| Part No. | Description   | 1       | 10      | 25      |
|----------|---|---------|---------|---------|
| 207239   | Handivac tool  | \$19.99 | \$16.99 | \$12.74 |
| 207247   | Pen vac tool  | 37.95   | 34.25   | 30.49   |

## Special! Low-Cost Irons




### 30-Watt Soldering Iron and Stand

- UL approved
- Ideal for precision work
- 1/4" removable tip
- Length: 8.3"
- 110-120VAC

| Part No. | Description  | 1      | 10     | 100    |
|----------|--|--------|--------|--------|
| 102462   | 30W soldering iron    | \$4.99 | \$4.49 | \$4.04 |
| 116020   | Replacement tips (2)  | 2.25   | 1.91   | 1.43   |
| 36329    | Soldering stand  | 4.95   | 4.46   | 4.01   |

### 35-Watt Soldering Iron

- UL approved
- Ideal for maintenance and hobby use
- 0.157" removable tip
- Length: 8.1"
- 110-120VAC

| Part No. | Description  | 1      | 10     | 100    |
|----------|--|--------|--------|--------|
| 208987   | 35W soldering iron        | \$2.99 | \$2.69 | \$2.45 |
| 208995   | Replacement tips (2)      | .99    | .84    | .63    |
| 209075   | Solder roll, 8mm (.031")  | 13.25  | 12.59  | 11.99  |



## Economical, High-Performance Soldering Irons

High-quality soldering irons that are suitable for both professional and do-it-yourself applications.








- 25W, 40W, & 60W
- Length: 9"
- 120VAC; 6' cord with 3-prong plug

Tips for 224611/224602:

226000 chisel; 226018 conical

Tips for 195223:


226026 chisel; 226034 conical

| Part No. | Product No.   | 1      | 10     | 25     |
|----------|---|--------|--------|--------|
| 224611   | 200PHG-25W     | \$7.95 | \$7.15 | \$6.45 |
| 224602   | 200PHG-40W     | 8.95   | 8.06   | 7.25   |
| 195223   | 200PHG-60W     | 13.95  | 12.49  | 12.11  |
| 226000   | 44-240517 tip  | .95    | .81    | .61    |
| 226018   | 44-240513 tip  | .95    | .85    | .79    |
| 226026   | 44-240617 tip  | 1.95   | 1.79   | 1.59   |
| 226034   | 44-240603 tip  | 1.95   | 1.79   | 1.59   |

## Weller® Cordless Soldering Iron Kit

- Self igniting and instant heat
- Adjustable temperature (25W to 125W)
- Auto switch off
- Visible gas level
- Additional tips can be special ordered
- 2 hours of heat on average tank setting

Includes: Soldering tool, hot blower tip, hot knife tip, 2.4mm and 4.8mm double flat tip, cleaning sponge, storage case and instruction manual








| Part No. | Prod. No.  | Description | 1       | 5       |
|----------|--|-------------|---------|---------|
| 152207   | PSI-100K  | Tool kit    | \$79.95 | \$75.95 |

## Butane-Powered Cordless Soldering Iron and Tips



This butane-powered soldering iron is designed for many popular cordless applications. Most common are automotive repair, aviation, electrical components, field repair, shrink tubing, television repair and more.

- Cordless, simple operation in the shop or field
- No electrical interference
- Automatic ignition
- Up to 200 minutes of operation in a full load
- Soldering temperature range: 240°F to 1000°F
- Torch temperature: 2400°F

| Part No. | Cross Ref. No.  | Description             | 1       | 5       |
|----------|---|-------------------------|---------|---------|
| 255266   | PRO-120  | Soldering iron ..       | \$44.95 | \$42.69 |
| 255273   | PS-1     | Tip, 1/32" flat .....   | 8.35    | 7.95    |
| 255302   | PS-3     | Tip, 1/8" flat .....    | 8.99    | 8.75    |
| 255329   | PS-5     | Tip, 1/32" chisel ..... | 8.99    | 6.74    |
| 255337   | PS-6     | Tip, 3/32" chisel ..... | 8.99    | 8.75    |
| 255362   | PS-9     | Tip, hot knife .....    | 8.99    | 8.75    |
| 255370   | PS-10    | Tip, hot blower .....   | 8.99    | 8.75    |



## Butane Powered Cordless Soldering Iron

- Cordless, simple operation
- Built-in on-off switch
- Length: 8.5"
- Can be used as a torch or hot blower
- Maximum temperature: 450°C (842°F)
- Average use of 40 minutes on a full load

| Part No. | Prod. No.    | Description           | 1       | 10      |
|----------|--------------|-----------------------|---------|---------|
| 645520   | GASIRON2     | Soldering iron ....   | \$29.55 | \$28.15 |
| 645554   | GASIRON2/SPB | Replacement tip ..... | 1.79    | 1.69    |

## WAHL® Cordless Soldering Iron

The #1 choice for field service soldering!

IsoTip® Power Pro Model #7904

- 900°F tip temperature
- LED indicator light
- Solders 200+ joints or up to 30 minutes of continuous soldering
- Iron performance equivalent to 25-watt iron
- Weight: 1.1 lbs.

Includes: Soldering iron, recharging stand, NiCd battery pack, and tips

| Part No. | Description   | 1       | 10      |
|----------|---|---------|---------|
| 132783   | Power Pro cordless iron  | \$65.15 | \$62.02 |

Committed to You

We're committed to providing you with the best service in the industry.



## Electric & Manual Desolder Pumps

- Easily disassembled for cleaning
- Replacement tips available



19255:

- UL listed
- One-hand operation
- Size: 10.5"L x 1.0"Dia.

19166: Size: 7.8"L x 0.8"Dia.

305218/305226: Size: 13"L x 1.0"Dia.

| Part No. | Description                          | 1       | 10      |
|----------|--------------------------------------|---------|---------|
| 19255    | Electric desolder pump  .....        | \$26.95 | \$23.95 |
| 19166    | Manual desolder pump  .....          | 4.95    | 4.49    |
| 305218   | Man. desolder pump (ESD safe)  ..... | 18.95   | 17.99   |
| 305226   | Manual desolder pump  .....          | 14.75   | 13.99   |
| 19262    | 1 tip for 19255  .....               | 4.95    | 4.49    |
| 22091    | 2 tips for 19166  .....              | 4.49    | 3.95    |
| 307774   | 1 tip for 305218  .....              | 4.55    | 4.35    |
| 307782   | 1 tip for 305226  .....              | 2.39    | 2.27    |

## Solder Spool & Iron Stand

- 4 pc. spool stand (some assembly required)
- Size: 6"L x 3.5"W x 3.1"H
- Sponge size: 1.6"W x 2.4"L
- Shaft diameter: 0.6" • Wt.: 2.0 lbs.



| Part No. | Description              | 1       | 10      | 100     |
|----------|--------------------------|---------|---------|---------|
| 169551   | Spool & iron stand ..... | \$16.95 | \$15.29 | \$13.75 |

## Solder Spool Stand

- 12 pc. solder spool stand (some assembly required)
- Size: 3.6"W x 3.9"D x 4.3"H
- Shaft dia.: 0.6" • Weight: 1.6 lbs.



| Part No. | Description               | 1      | 10     | 100    |
|----------|---------------------------|--------|--------|--------|
| 141761   | Solder spool stand  ..... | \$8.95 | \$7.95 | \$6.95 |

## Soldering Kit

A perfect soldering tool kit for technicians and maintenance professionals doing solder work in the field. This kit includes:

100W soldering gun with extra tip, 30W soldering iron, manual desoldering pump, mini third-hand board/component holder, lead solder, and soldering aid tool.

- Size: 13.8"L x 11"W x 3"H • Weight: 4.0 lbs.



| Part No. | Description    | Price   |
|----------|----------------|---------|
| 684596   | GSR-600A ..... | \$32.55 |

## Modern Solder Technology For Competitive Electronics Manufacturing Book

McGraw-Hill

This book covers all relevant technologies for the application of solder in electronic and microelectronic packaging and assembly. Includes a proper level of underlying fundamentals that are important to practical applications. (622 pages, 1996)

- Size: 9.2" x 6.2"



| Part No. | Description                         | Price   |
|----------|-------------------------------------|---------|
| 677951   | Modern Solder Technology Book ..... | \$85.45 |

## Solder Bars

- Used with solder pots

• Size: 13"L x 0.9"Dia.

176057: 60/40 170464: 63/37

668406: 99.3% tin, 0.7% copper

668414: 96.3% tin, 3.2% silver, 0.5% copper

668422: 96.5% tin, 3.5% gold

| Part No. | Description       | Wt. (lbs.) | 1      | 10     | 25     |
|----------|-------------------|------------|--------|--------|--------|
| 176057   | 60/40  .....      | 1.1        | \$8.49 | \$7.65 | \$6.89 |
| 170464   | 63/37  .....      | 1.8        | 11.95  | 11.33  | 10.77  |
| 668406   | 99.3/7  .....     | 2.2        | 33.79  | 31.95  | 30.11  |
| 668414   | 96.3/3.2/5  ..... | 2.2        | 67.89  | 61.69  | 55.53  |
| 668422   | 96.5/3.5 .....    | 2.2        | 73.99  | 67.24  | 60.52  |



## 300-Watt Solder Pots

Temperature Regulated  
Between 420°C and 450°C

- HI/LO temperature switch
- 2 conductor power cord: 5' 9" long
- Holds up to 1 bar of P/N 176057 or 170464, above
- Input voltage: 110VAC @ 2.7A; 50-60Hz
- Size: (unit) 4.8"H x 5.5" Dia. (base) • Weight: 5.9 lbs.
- Size: (tub) 2.4"Dia. x 1.6"D • One-year warranty

| Part No. | Description            | 1       | 10      | 25      |
|----------|------------------------|---------|---------|---------|
| 160304   | 300W solder pot  ..... | \$64.95 | \$58.49 | \$52.65 |
| 668043   | 300W solder pot  ..... | 146.95  | 139.59  | 132.65  |



## 600-Watt Solder Pots

Temperature Adjustable

- 2-wire power cord (5'5")
- Temperature: 0°C to 500°C
- Self-regulating temperature
- Input voltage: 110VAC @ 5.5A
- On-off power switch and LED indicator for heat
- Holds up to 3 bars of P/N 176057 or 170464, above
- Size: (unit): 6.8"L x 5.5"W x 2.8"H
- Size: (tub): 3.9"L x 1.6"D • Weight: 7.4 lbs.

Includes: Skimmer and removable dross tray

| Part No. | Description            | 1        | 10       |
|----------|------------------------|----------|----------|
| 172276   | 600W solder pot  ..... | \$189.95 | \$146.25 |
| 668051   | 600W solder pot  ..... | 291.59   | 276.09   |



## 2000-Watt Solder Pot

- Thermostat control for setting temp. from 50°C to 300°C
- Holds up to 48 bars of P/N 176057 or 170464, above
- 3 conductor pigtail power cord: 5' long
- Input voltage: 110VAC @ 18A, 50-60Hz single phase
- Size: (unit): 18.1"L x 11.5"W x 6.0"H
- Size: (tub): 12.0"L x 8.0"W x 2.9"H
- Weight: 23.1 lbs. • One-year warranty

| Part No. | Description                 | 1        | 5        |
|----------|-----------------------------|----------|----------|
| 149876   | 2000 watt solder pot  ..... | \$399.95 | \$359.95 |

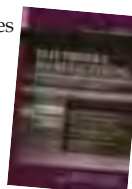


## Electronics Manufacturing Book

McGraw-Hill

This comprehensive guide provides cutting-edge information on lead-free, halogen-free and conductive-adhesive technologies and their application to low-cost, high-density, reliable, and green products. Essential for professionals who wish to master lead-free, halogen-free, and conductive-adhesive problem solving methods. (592 pages, 2003)

- Size: 9.2" x 6.3"



| Part No. | Description                          | Price   |
|----------|--------------------------------------|---------|
| 677994   | Electronics Manufacturing Book ..... | \$91.95 |

## Fume Extractor

Designed to remove solder flux fumes and other work place fumes from the operator's breathing zone. Uses activated-carbon filter and a high efficiency fan. Air is filtered, cleaned, and returned to the workplace.

- Input voltage: 110 – 120V
- Power: 20W • Arm length: 29"
- Fan specifications: 50dB S/N ratio: 87cfm
- Size: 8.3"H x 8.3"W x 5.3"D • Weight: 3.3 lbs.

| Part No. | Product No.                       | 1       | 10      |
|----------|-----------------------------------|---------|---------|
| 667420   | GS-630A .....                     | \$54.09 | \$51.25 |
| 672579   | GS-628-08 (carbon filter 3pk.) .. | 15.99   | 14.39   |



## Weller® Fume Extractor

This fume extractor removes flux fumes from the soldering workbench by drawing smoke through an activated carbon filter. With its exceptionally quiet fan, it can process up to 1.37 cubic meters of air per minute and its stand is adjustable allowing it to be set-up in multiple positions.

- Voltage: 120VAC • Sound level: 45-50dB
- Air consumption: 87-107CFM • UL/CUL listed
- Power consumption: 20W • ESD safe
- Absorption capacity: 1.25 cubic meters to 1.37 cubic meter per minute
- Size: 10"L x 6.5"W x 11"H • Weight: 4.2 lbs.

| Part No. | Product No.                   | 1       | 5       |
|----------|-------------------------------|---------|---------|
| 684810   | WSA350 .....                  | \$47.95 | \$44.95 |
| 684828   | WSA350F (carbon filter) ..... | 7.15    | 6.79    |



## Fume Extractors

Absorbs noxious lead fumes using activated-carbon filter and a high-efficiency fan

- Operate continuously providing filtered air
- Static ground jack • Fuse protected
- Air flow: 115 CFM • Noise: 49dB fan
- 20VAC, 60Hz, 22 watt
- Aerodynamic hood design for effective removal of solder fumes
- Black anodized aluminum case
- Removable carbon-impregnated filter
- Size: 6.4"W x 4.6"D x 7.9"H
- Weight: 4.6 lbs. • One-year warranty

Includes: Detachable power cord

| Part No. | Description                 | 1       | 10      | 25      |
|----------|-----------------------------|---------|---------|---------|
| 120150   | Fume extractor  .....       | \$58.95 | \$52.95 | \$47.79 |
| 127183   | Replace. filters (2/pk)  .. | 12.95   | 11.66   | 10.49   |



## Combination 42-Watt Soldering Station and Fume Extractor

- Power consumption: 42W @ 650°F (soldering iron)
- Adjustable knob for temperature control: 500°F to 800°F
- Stability @ Idle: ±9°F
- Max. air volume: 95/115CFM
- LED indicator for pilot light
- Electronic zero-voltage switching
- Input voltage: 100-120VAC @ 60Hz
- Size: 6.4"W x 7.8"H x 4.7"D • Weight: 5.2 lbs.

Includes: Soldering iron, iron holder, sponge, carbon activated filter, power cord and manual

| Part No. | Product No.   | 1       | 10      |
|----------|---------------|---------|---------|
| 183169   | 456DLX  ..... | \$89.95 | \$86.29 |





## Soldering Tip Cleaner with Stand and Rosin Paste Flux

156777:




- For cleaning soldering iron tips without the use of water and sponge
- Metal wool for cleaning
- Rubberized base for stability



156777

73584

**73584:** Highly active non-corrosive and non-conductive flux with excellent wetting action

| Part No. | Description   | 1      | 10     | 50     |
|----------|---|--------|--------|--------|
| 156777   | Tip cleaner & stand  ...       | \$4.95 | \$4.49 | \$4.05 |
| 160004   | Metal wool replacement  2.79   | 2.79   | 2.49   | 2.29   |
| 73584    | Rosin paste flux (2 oz.)  2.95 | 2.95   | 2.36   | 1.77   |

## Lead-Free Solder Tip Tinner

Prevents oxide buildup and tin depletion on the tip. Increases tip life and heat transfer resulting in a better solder joint!



**Safe and Effective!**

- 0.7 oz. tin with self adhesive pad

| Part No. | Description   | 1      | 10     | 50     |
|----------|---|--------|--------|--------|
| 132986   | Lead-free tip tinner  .... | \$4.95 | \$4.59 | \$4.19 |

## 5' No-Clean Desolder Braids





Meets all of the most stringent soldering standards for worldwide application including: MIL-F-142560D Type R, NASA specification NHB5300.4, NPC200-4 and SP-5002.

- Length: 5'



139951

124126




| Part No. | Description  | 1      | 10     | 100    |
|----------|--|--------|--------|--------|
| 139951   | .030"W desolder braid  \$2.79 | \$2.79 | \$2.49 | \$2.09 |
| 124126   | .055"W desolder braid  2.55   | 2.55   | 2.33   | 2.11   |
| 124118   | .075"W desolder braid  2.59   | 2.59   | 2.33   | 2.11   |
| 263708   | .098"W desolder braid  2.89   | 2.89   | 2.64   | 2.51   |

## 5' Desoldering Braids

- Easy-to-use, handy dispenser
- Braided copper with flux



















41099

| Part No. | Description  | 1      | 10     | 100    |
|----------|--|--------|--------|--------|
| 41082    | .079"W braid (5')  ..... \$1.49 | \$1.49 | \$1.27 | \$0.95 |
| 41099    | .098"W braid (5')  ..... 1.55   | 1.55   | 1.29   | 1.15   |
| 153461   | .120"W braid (5')  ..... 1.59   | 1.59   | 1.39   | 1.25   |

## Free Technical Support

Our knowledgeable Tech Support department is ready to answer your questions. Just call us! 1-800-831-4242

## Rosin Core Solder Rolls and Pocket Packs

| Part No. | Manufacturer   | % Composition |      |        |        | Dia. (in.) | Wt. (lbs.) | Pricing |        |        |        |
|----------|--|---------------|------|--------|--------|------------|------------|---------|--------|--------|--------|
|          |  | Tin           | Lead | Silver | Copper |            |            | 1       | 10     | 50     | 100    |
| 73576    | —             | 99.3          | —    | —      | 0.7    | 0.04       | 0.6        | \$10.45 | \$8.64 | \$8.20 | \$7.79 |
| 668078   | —             | 96.3          | —    | 3.2    | 0.5    | 0.04       | 0.6        | 17.69   | 14.15  | 13.58  | 13.00  |
| 668262   | —             | 96.5          | —    | 3.5    | —      | 0.04       | 0.6        | 15.95   | 14.40  | 14.20  | 13.97  |
| 668271   | —             | 99.3          | —    | —      | 0.7    | 0.04       | 1.1        | 19.39   | 15.69  | 14.91  | 14.16  |
| 668289   | —             | 96.3          | —    | 3.2    | 0.5    | 0.04       | 1.1        | 29.95   | 27.50  | 26.75  | 25.99  |
| 668297   | —             | 96.5          | —    | 3.5    | —      | 0.04       | 1.1        | 27.79   | 25.60  | 25.08  | 24.56  |
| 668318   | —  | 99.3          | —    | —      | 0.7    | 0.04       | 2.2        | 38.75   | 31.39  | 29.82  | 28.33  |
| 668326   | —             | 96.3          | —    | 3.2    | 0.5    | 0.04       | 2.2        | 57.19   | 46.66  | 44.33  | 42.78  |
| 668334   | —  | 96.5          | —    | 3.5    | —      | 0.04       | 2.2        | 65.45   | 62.18  | 59.07  | 56.12  |
| 668342   | —  | 60            | 40   | 0      | —      | 0.031      | 0.55       | 5.95    | 5.39   | 4.85   | 4.35   |
| 141794   | Super         | 60            | 40   | 0      | —      | 0.031      | 1.10       | 7.95    | 6.95   | 6.25   | 5.82   |
| 141786   | Super         | 60            | 40   | 0      | —      | 0.031      | 2.20       | 14.69   | 13.95  | 13.33  | 12.80  |
| 141778   | Super         | 60            | 40   | 0      | —      | 0.031      | 0.06       | 1.39    | 1.25   | 1.05   | .99    |
| 170457   | Golden        | 60            | 40   | 0      | —      | 0.031      | 0.04       | 2.59    | 2.33   | 2.10   | 1.75   |
| 73576    | Kester (pak)  | 60            | 40   | 0      | —      | 0.031      | 1.00       | 13.55   | 12.25  | 11.05  | 9.95   |
| 32117    | Kester        | 62            | 36   | 2      | —      | 0.020      | 0.02       | 1.25    | .99    | .97    | .96    |
| 73605    | Kester (pak)  | 63            | 37   | 0      | —      | 0.020      | 1.00       | 19.49   | 18.50  | 18.27  | 18.14  |
| 112344   | Kester        | 63            | 37   | 0      | —      | 0.031      | 1.00       | 18.39   | 16.55  | 14.89  | 13.39  |
| 151474   | Kester       |               |      |        |        |            |            |         |        |        |        |

\* Organic core

## TECHSPRAY ProWick® Desoldering Braids




### Pure Rosin

Finest oxygen-free and oil-free fine-gauge wire, the 100% copper wick is then coated with flux, which cleans connections thoroughly during desoldering to insure maximum solderability. The thin coating of flux also provides dependable, long lasting protection from oxidation.

- 263581 with bobbin • Length: 5'



263695

| Part No. | Product No.  | 1      | 10     | 100    |
|----------|--|--------|--------|--------|
| 263695   | 1803-5F (0.075"W)  \$2.09   | \$2.09 | \$1.90 | \$1.80 |
| 263599   | 1804-5F (0.098"W)  .. 2.39  | 2.39   | 2.25   | 2.04   |
| 263581   | 1811-5F (0.098"W)  ... 2.65 | 2.65   | 2.47   | 2.25   |

## Angled Bottle

An 8 oz. squeeze bottle made of polyethylene plastic that is ESD safe. Nozzle is angled making it easier for applications in tight places.



| Part No. | Description         | 1      | 5      |
|----------|---------------------|--------|--------|
| 667471   | Angled bottle ..... | \$7.45 | \$7.08 |

## Flux Dispensing Bottle with Capillary Needles

An 8 oz. squeeze bottle made of polyethylene plastic that is ESD safe. Comes with capillary needles in .01" and .02" diameters, adapter for needles, squirt nozzle and cover.



| Part No. | Product No.    | 1      | 10     |
|----------|----------------|--------|--------|
| 667489   | RD-7372A ..... | \$6.79 | \$6.45 |

## Plastic Pump Bottle

- 6 oz. bottle
- ESD compliant
- Plastic bottle with dispenser cover




| Part No. | Description   | 1      | 10     | 50     |
|----------|---|--------|--------|--------|
| 158131   | Pump bottle  ..... | \$9.95 | \$8.95 | \$7.95 |

## Clip-On Heat Sink

- Absorbs and dissipates heat during soldering and desoldering sensitive parts
- Size: 2.7"L x 0.7"W



| Part No. | Mfr. Part No.   | 1      | 10     | 25     |
|----------|---|--------|--------|--------|
| 159126   | HT156  ..... | \$2.65 | \$2.38 | \$2.15 |

## 7-Piece Soldering Aid Kit



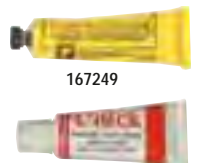
Includes soldering wick, 3 pc. scraper set, acid brush, clip-on heat sink and empty squirt bottle

| Part No. | Description  | 1      | 10     | 50     |
|----------|--|--------|--------|--------|
| 100503   | Soldering kit  .... | \$5.95 | \$5.35 | \$4.82 |

## Heat Sink Compounds



Thermally loaded silicone-based grease that improves transfer of energy across the metal-to-metal interface between transistor or rectifier and heat sink.

- Color: opaque white



167249

236823

| Part No. | Mfr. Part No.   | 1      | 10     | 100    |
|----------|---|--------|--------|--------|
| 167249   | THM250 (2 oz.)  .... | \$9.95 | \$8.96 | \$8.06 |
| 236823   | 54114 (1 oz.)  ..... | 4.95   | 4.21   | 3.16   |

## Heat Sink Compound 4-oz. Tube

This silicone-free compound provides more effective heat transfer. Will not harden, dry out, melt, or contaminate wave-solder baths.



| Part No. | Product No.  | 1       | 10      |
|----------|--|---------|---------|
| 169252   | 1978DP  ..... | \$17.99 | \$17.19 |



## Heatsink Compounds

### Silicone (Z9)

Industry standard zinc oxide-filled silicone heatsink grease for most applications. Will not soften at elevated temperatures, dry out or harden. Meets MIL SPEC C-47113



615321

| Part No. | Prod. No. | Description          | 1       | 10      | 100     |
|----------|-----------|----------------------|---------|---------|---------|
| 615304   | 10-8106   | 1 lb. can .....      | \$29.05 | \$27.03 | \$23.71 |
| 615312   | 10-8108   | 6.5 gram tube ..     | 2.29    | 2.13    | 1.87    |
| 615321   | 10-8109   | 1 fl. oz. tube ..... | 6.35    | 5.89    | 5.17    |

### Type 44 Non-Silicone

Compounded with 100% synthetic base stocks. Features excellent heat transfer, efficiency, thermal stability, high flow rate, no separation, bleed or migration typical of silicone-based greases. MIL-C-47113 type 2



615339

| Part No. | Prod. No. | Description          | 1      | 10     | 100    |
|----------|-----------|----------------------|--------|--------|--------|
| 615339   | 10-8118   | 1/2 oz. jar .....    | \$7.85 | \$7.27 | \$6.37 |
| 615347   | 10-8120   | 1 fl. oz. tube ..... | 8.49   | 7.95   | 7.42   |
| 615355   | 10-8126   | 1 lb. jar .....      | 40.29  | 37.51  | 32.89  |

### HTC (High Thermal Conductivity)

High conductivity formula has all the same benefits of conventional heatsink greases, plus it is exceptionally stable in high humidity applications.



| Part No. | Prod. No. | Description   | 1       | 10      | 100    |
|----------|-----------|---------------|---------|---------|--------|
| 615363   | 10-8135   | 1 oz. syringe | \$11.49 | \$10.68 | \$9.37 |

## Implementing Lead-Free Electronics Book

McGraw-Hill

This book provides timely information on the choices and trade-offs facing manufacturers converting to lead-free manufacturing. This book is laid out as a quick guide, providing successful examples in conjunction with the basic principles of the implementation and production of lead-free electronics on a global basis. (473 pages, 2005)



• Size: 9.3" x 6.2"

| Part No. | Description                              | Price   |
|----------|--|---------|
| 677986   | Implementing Lead-Free Electronics ..... | \$89.45 |

## PANA VISE Vacuum Vise

- Patented "split ball" feature tilts/turns/rotates through three planes
- Nylon jaws open a full 2.25"
- Powerful suction pad for quick and easy set-up
- Size: 5.0"L x 4.0"W x 6.3"H
- Weight: 3.3 lbs.
- One-year warranty



| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 27131    | M381        | \$55.95 | \$53.25 |

### Vacuum Vise

Quantity SAVE

- Features the patented "split ball" that tilts, turns and rotates through three planes
- Nylon jaws open a full 2.25"
- Powerful suction pad for quick and easy set-up
- Size: 5.0"L x 4.0"W x 6.3"H
- Weight: 3.3 lbs.
- One-year warranty



| Part No. | Cross Ref. No. | 1       | 5       |
|----------|----------------|---------|---------|
| 262115   | GV-300         | \$47.19 | \$35.39 |

## PANA VISE PV Jr. Vise

- Jaw opening: 2.8"
- Jaw size: 1" wide x 2" long
- Jaw heat tolerance: 350°F
- Vertical/horizontal jaw grooves
- Fine/course adjusting knob
- Vise height: 6.8"
- The vise neck tilts, turns and rotates
- Base bolt is 4.3" and fits all PanaVise base mounts
- Weight: 1.4 lbs.
- One-year warranty



| Part No. | Description                | 1       | 10      |
|----------|----------------------------|---------|---------|
| 134439   | Jr. vise w/ mountable base | \$21.95 | \$19.95 |

## Clamp Vise

- No tools needed—finger turn to tighten
- Ball cup allows vise to adjust to any angle
- Nylon jaws open 2"
- Size: 10.0"L x 2.5"W
- Weight: 2.1 lbs.



| Part No. | Description | 1       | 10      |
|----------|-------------|---------|---------|
| 127167   | Clamp vise  | \$17.95 | \$16.99 |

## Third Hand

- Frees hands for soldering
- Two adjustable arms with alligator clip jaws
- 2" diameter magnifying lens
- Quick and easy rotation
- Sturdy, heavy base
- Weight: 0.7 lbs.

681002



| Part No. | Description | 1      | 10     | 50     |
|----------|-------------|--------|--------|--------|
| 26690    | Third hand  | \$5.95 | \$5.35 | \$4.79 |
| 681002   | Third hand  | 8.75   | 7.89   | 7.15   |

## PANA VISE Electronic Work Center

- Circuit board holder, standard base, tray base mount, solder station, sponges and wire holder included
- Size: 8.5"W x 7.8"H
- Weight: 5.3 lbs.
- One-year warranty



| Part No. | Description       | 1       | 5       | 10      |
|----------|-------------------|---------|---------|---------|
| 27060    | Electronic center | \$74.95 | \$71.25 | \$67.95 |

## PANA VISE Multi-Purpose Work Center

- One of the most versatile combinations, perfect for home or hobby needs
- Jaws open to 9"
- Double action extra wide self-centering heads allow fast opening and closing; centered weight allows the jaws to hold heavier objects; plates can be reversed to close together; reversible jaw pads feature ribbing on one side and a V groove on the other
- Patented single load control knob and split-ball feature firmly lock the head into place
- Base has three 1/4" countersunk mounting holes
- Part tray base contains six integral parts wells with rounded and sloped walls for easy parts removal
- Overall base diameter is 8.5"



| Part No. | Product No. | 1       | 5       |
|----------|-------------|---------|---------|
| 684852   | 350         | \$79.95 | \$74.95 |

## PANA VISE Rapid Assembly Circuit Board Holder

- Features 8 positions rotating adjustment, six positive lock positions in the vertical plane and height adjustment for quick board rotation speeds and component insertion
- Holds circuit boards from 1/8" (3.2mm) to 12" (304.8mm) wide and up to 5/32" (4mm) thick
- Arms move independently and may be positioned adjacent to each other
- 10" high (from base to top of vertical shaft)
- Stable weighted base
- Weight: 6.4 lbs.



| Part No. | Product No. | 1       | 5       |
|----------|-------------|---------|---------|
| 684844   | 333         | \$69.95 | \$63.95 |

## PANA VISE Vacuum Base Vise

- Lever locks vacuum pad into place on any flat, smooth, non-porous surface
- Head moves through three planes: 210° tilt, 360° turn and rotation
- Grooved jaws are made of reinforced thermal alloy and open up to 2.9"
- Fine/coarse adjustment knobs control jaw pressure
- Arm movement is 140°; positive indents control movement to prevent "flopping"
- Jaw size: 2"H x 1"W
- Base diameter: 3.4"
- Overall height: 7.5"H
- Weight: 0.8 lbs.



| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 251791   | 209         | \$29.99 | \$27.59 |

SALE

## We're Listening to What You Need

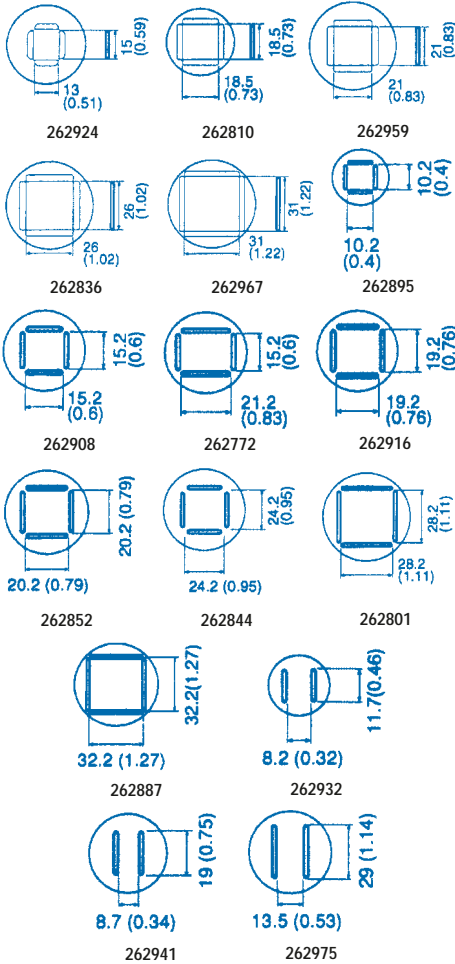
Our goal is to provide you with more of what you want. Let us know how we can better serve your electronics needs. Please send your requests to [NewProducts@Jameco.com](mailto:NewProducts@Jameco.com).

♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

## Focus Hood Tips

Dimensions: mm (in.)



## Hot Air SMD Rework Station with Digital Display

The Hot-Air SMD 850D is engineered to meet the demanding needs of today's electronic industry; technicians, service/repair and assembly rework. The system not only increases productivity for SMD assembly and repair but also achieves a new standard of quality.

- Incorporates a US made pump – the largest in the industry
- Long life ceramic heater insures accurate and sufficient heat where you need it
- Adjustable air-flow
- Electronically controlled temperature system with digital readout in preset and actual temperature
- Automatic cooling mode protects the heating element
- Power supply: 100-120VAC or 220-240VAC
- Airflow capacity: 1.5L/min. to 28L/min.
- 310W nichrome heating element
- Hot air temperature range: 100°C - 385°C (212°F - 725°F) • 25W diaphragm pump
- Size: 7.4"W x 9.6"D x 5.0"H • Weight: 10.8 lbs.

**Includes:** Precision 5 pc. non-magnetic tweezer set, 4 focus hood tips (single 2.5mm and 4.4mm pipes, P/N 262895 and 262908)



| Part No. | Product No. | Description                                       | 1        | 5        |
|----------|-------------|---|----------|----------|
| 262705   | 850D        | Hot air SMD rework station with 4 focus hood tips | \$395.05 | \$375.25 |
| 262983   | HG850D      | Heat gun replacement                              | 78.95    | 74.95    |
| 262924   | A1141B      | Focus hood tip, PLCC 11.5 x 14                    | 34.95    | 33.25    |
| 262810   | A1135B      | Focus hood tip, PLCC 17.5 x 17.5                  | 34.95    | 26.21    |
| 262959   | A1136B      | Focus hood tip, PLCC 20 x 20                      | 49.95    | 48.29    |
| 262836   | A1137B      | Focus hood tip, PLCC 30 x 30                      | 49.95    | 37.46    |
| 262967   | A1138B      | Focus hood tip, PLCC 30 x 30                      | 49.95    | 48.29    |
| 262895   | A1125B      | Focus hood tip, QFP 10 x 10                       | 34.95    | 33.25    |
| 262908   | A1126B      | Focus hood tip, QFP 14 x 14                       | 34.95    | 33.25    |
| 262772   | A1128B      | Focus hood tip, QFP 14 x 20                       | 34.95    | 33.25    |
| 262916   | A1127B      | Focus hood tip, QFP 17.5 x 17.5                   | 34.95    | 33.25    |
| 262852   | A1261B      | Focus hood tip, QFP 20 x 20                       | 49.95    | 48.29    |
| 262844   | A1182B      | Focus hood tip, BQFP 24 x 24                      | 49.95    | 48.29    |
| 262801   | A1129B      | Focus hood tip, QFP 28 x 28                       | 49.95    | 37.46    |
| 262887   | A1265B      | Focus hood tip, QFP 32 x 32                       | 79.95    | 75.95    |
| 262932   | A1258B      | Focus hood tip, SOP 7.6 x 12.7                    | 34.95    | 33.25    |
| 262941   | A1260B      | Focus hood tip, SOP 8.6 x 18                      | 34.95    | 33.25    |
| 262975   | A1259B      | Focus hood tip, SOP 13 x 28                       | 49.95    | 48.29    |

## Weller® Digital Soldering Stations

684772:

- New WP80 soldering pencil offers 80 watts of power with short tip-to-grip (52mm)
- 80W of power
- Barrel can be exchanged with optional longer version to work at standard length (65mm)
- Unique silver heater allows fast, efficient soldering
- Uses WP80 soldering pencil and WDH10 soldering stand
- Size: 15.4"L x 10.2"W x 5.2"H • Weight: 8.2 lbs.



684781:

- Extensive special functions menu allows you to use setback, lockout, standby, auto-off time and more
- Heating element is contained in the pencil rather than the tip
- Micro pencil with short tip-to-grip (37mm) puts you close to the work
- Iron stand has adjustable tilt angle in 4 positions ranging from 30 to 80 degrees
- Uses WMP soldering pencil and WDH20 iron stand
- Size: 15.9"L x 10.9"W x 5.8"H • Weight: 7.5 lbs.

| Part No. | Product No. | Description | 1        | 5        |
|----------|-------------|-------------|----------|----------|
| 684772   | WD1002      | 80W         | \$279.95 | \$269.95 |
| 684781   | WD1001      | 85W         | 279.95   | 269.95   |

## Weller® Pro Cordless Coldheat Soldering Iron

Using the patented Coldheat™ system, the Weller Pro Cordless melts solder instantly and is cool to the touch in just seconds. But unlike most other products, the Weller Pro has the power industrial professionals need to tin wire as large as 12AWG or join wires from 18-25AWG. With an average yield of 700 solder joints per 5 AA alkaline batteries, it has what it takes to be an invaluable tool anywhere field soldering is required.

- Polycarbonate body
- High/low/off power switch
- Bright white LED work light
- Red "in use" indicator light
- Requires 5 AA alkaline batteries
- Includes carrying case and CHT3 61° angle chisel tip

| Part No. | Prod. No. | Description             | 1       | 5       |
|----------|-----------|-------------------------|---------|---------|
| 684705   | CHT100    | Cordless soldering iron | \$40.29 | \$37.25 |
| 684713   | CHT1      | 50° angle bevel tip     | 11.19   | 10.65   |
| 684756   | CHT2      | 61° angle conical tip   | 11.19   | 10.65   |
| 684764   | CHT3      | 61° angle chisel tip    | 11.19   | 10.65   |



## CHIPQUIK SMD 2000 Removal System

### Complete Solder/Desolder Rework Kit

- Removal alloy, solder paste, 3" solder, paste flux, liquid flux remover/cleaner, handi vac, 2 acid brushes, precision tweezers, six 4" x 4" cleaning wipes, 10 swabs, 6 alcohol pads, SMD removal/clean up instructions, stainless steel probe kit & 5" solder wick



| Part No. | Description             | 1       | 10      |
|----------|-------------------------|---------|---------|
| 208055   | SMD 2000 removal system | \$99.95 | \$94.99 |

## CHIPQUIK SMD Removal Kit

- Quick and easy to use
- Potential damage to printed circuit boards is eliminated
- 2.5" of CHIPQUIK® material removes 1250-1500 SMD pins
- Uses simple equipment and materials for application & clean-up



| Part No. | Description     | 1       | 10      |
|----------|-----------------|---------|---------|
| 141305   | SMD removal kit | \$24.95 | \$22.45 |



## 3M Scotch-Weld™ Adhesive

A higher viscosity, one-part, high strength, fast-setting adhesive that cures at room temperature. Adheres to difficult-to-bond substrates such as EPDM rubber, aluminum, and flexible vinyl. Scotch-Weld adhesive exhibits good resistance to soap solutions and isopropyl alcohol.



| Part No. | Description                 | 1       | 5       | 10      |
|----------|-----------------------------|---------|---------|---------|
| 646477   | ScotchWeld C-40 <b>R</b> *  | \$19.95 | \$19.25 | \$18.49 |
| 646717   | ScotchWeld C-40H <b>R</b> * | 18.95   | 17.75   | 16.75   |

## 3M Scotch-Weld™ Epoxy Adhesive DP-100

A flame-retardant (self-extinguishing) off-white version of 3M™ Scotch-Weld™ DP-100 Adhesive. It meets UL94VO burn test requirements, has a 1:1 mix ratio, and has a work life of 5 - 8 minutes. It is ideal for many applications requiring a flame retardant adhesive.



| Part No. | Description            | 1       | 10      | 25      |
|----------|------------------------|---------|---------|---------|
| 652228   | 1.7 fl. oz. <b>R</b> * | \$18.75 | \$16.63 | \$14.94 |

## 3M Scotch-Weld™ Epoxy Adhesive DP-190

A gray, flexible, two-part adhesive that cures at room temperature and provides high strength bonds with good performance in shear and peel. Can be used to bond rubber, metal, wood, most plastics and masonry products. This adhesive has a 90 minute work life, with improved impact and shock resistance over many traditional epoxy adhesives. It is a 1:1 mix ratio of 2216 B/A gray adhesive.



| Part No. | Description            | 1       | 5       | 10      |
|----------|------------------------|---------|---------|---------|
| 652236   | 1.7 fl. oz. <b>R</b> * | \$17.49 | \$16.25 | \$15.25 |

## 3M Scotch-Weld™ EPX™ Plus II Applicator

The applicator is a low-cost portable, self-contained metering, mixing and dispensing machine that simultaneously meters and mixes two-part adhesives as the material is applied. The plunger is for the 3M™ Scotch-Weld™ EPX™ Plus II Applicator. The EPX Plus II Applicator is used to dispense 3M™ Scotch-Weld™ adhesives in duo-pak cartridges.



| Part No. | Description               | 1       | 5       | 10      |
|----------|---------------------------|---------|---------|---------|
| 652201   | Applicator <b>R</b> ..... | \$64.95 | \$59.95 | \$54.95 |

## 3M Tapered Mixer Tip

Enables technicians to apply a fine bead for use in bonding impact strips and sealing small seams as well as other applications where a fine bead is required. Tip can be cut for desired bead thickness. For use with P/N 652201 (above).



| Part No. | Description              | 1      | 10     | 25     |
|----------|--------------------------|--------|--------|--------|
| 652210   | Mixer tip <b>R</b> ..... | \$1.55 | \$1.37 | \$1.23 |

## 3M Scotch-Grip™ Rubber and Gasket Adhesive

A yellow, premium quality, versatile, brushable, heat resistant adhesive that develops strength rapidly. Has excellent adhesion to metal, baked enamel, wood, most plastics, neoprene, reclaim, SBR and butyl rubber. NOT for EPDM rubber.



| Part No. | Description           | 1       | 10      | 25      |
|----------|-----------------------|---------|---------|---------|
| 647058   | 5 oz. tube <b>R</b> * | \$13.65 | \$12.09 | \$10.86 |

## 3M Scotch-Grip™ Plastic Adhesive

A clear, elastomeric adhesive with exceptional adhesion to metal and plastic. This adhesive is unique in its ability to bond hard-to-hold materials like polypropylene, polyethylene, and high-impact polystyrene. Exhibits high immediate bond strength, long tack range, and contact bond properties. Good resistance to water and aging.



| Part No. | Description           | 1       | 10      | 25      |
|----------|-----------------------|---------|---------|---------|
| 647066   | 5 oz. tube <b>R</b> * | \$13.25 | \$11.75 | \$10.56 |

## 3M Super 77 Spray Adhesive

High tack, high coverage and fast drying for permanently attaching foils, carpeting, paper, cardboard, felt and cloth to painted or unpainted metals, wood and hardboard.



| Part No. | Description                         | 1      | 5      | 10     |
|----------|-------------------------------------|--------|--------|--------|
| 645870   | 10 oz. aerosol can <b>R</b> * ..... | \$8.95 | \$8.49 | \$8.09 |

## 3M Super Adhesive Glue

Scotch® Super Strength Adhesive is an industrial strength adhesive for most household repairs. Forms a nearly invisible bond that offers versatility and a strong grip. Resists heat, water, oil and grease. Bonds glass, metal, porcelain, plastics and many other types of materials.



| Part No. | Description          | 1      | 10     | 25     |
|----------|----------------------|--------|--------|--------|
| 645845   | 30ml tube <b>R</b> * | \$4.99 | \$4.59 | \$4.19 |

## 3M Super Glue Gel

3M™ Super Glue Gel quickly repairs glass, china, jewelry, balsa wood, rubber and rigid plastic. It forms a strong bond, fills small gaps better than non-gels, and the gel formula lasts longer in the tube.



| Part No. | Description            | 1      | 10     | 25     |
|----------|------------------------|--------|--------|--------|
| 645837   | 2 gram tube <b>R</b> * | \$1.99 | \$1.89 | \$1.79 |

## 3M Scotchkote™ Electrical Coating

Scotchkote™ Electrical Coating provides vinyl tapes with an extra oil, moisture and corrosion-resistant layer of flexible coating for problem areas. A fast drying sealant and bonding compound, in a brush top can for quick & easy application.



| Part No. | Description              | 1      | 5      | 10     |
|----------|--------------------------|--------|--------|--------|
| 647074   | 4 fl. oz. can <b>R</b> * | \$9.75 | \$8.55 | \$8.10 |

## 3M Citrus Base Cleaner

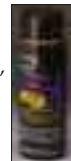
A citrus oil based cleaner which can dissolve and flush away dirt, grease, tar, most non-curing type adhesive films, and similar substances. Emulsifies when flushed with water.



| Part No. | Description           | 1       | 5       | 10      |
|----------|-----------------------|---------|---------|---------|
| 647040   | 24 oz. can <b>R</b> * | \$19.95 | \$18.49 | \$17.49 |

## 3M 5-Way Penetrant

Effective as a demineralizer – displaces moisture and “dries out” electrical apparatus. Inhibits rust – spreads a thin, even film that actually penetrates the pores of the surface to inhibit rust and corrosion. Penetrant – frees rusted, frozen bolts, nuts, etc. Lubricant – for delicate machines or precision instruments.



| Part No. | Description                       | 1       | 10      | 25      |
|----------|-----------------------------------|---------|---------|---------|
| 645888   | 24 fl. oz. aerosol can <b>R</b> * | \$14.49 | \$12.87 | \$11.56 |

## 3M Respirator Mask

Recommended for sanding and working with fiberglass insulation and drywall sanding. 3M™ Cool Flow™ Exhalation Valve allows easy exhalation and heat reduction, which provides cool, dry comfort. NIOSH approval: N95.



| Part No. | Description                    | 1      | 10     | 25     |
|----------|--------------------------------|--------|--------|--------|
| 645968   | Respirator mask <b>R</b> ..... | \$7.69 | \$6.79 | \$6.10 |

## 3M Home Dust Mask

Lightweight, disposable masks offer relief from irritating effects of common household dusts. Patented filter media is greater than 90% efficient for particles of all sizes. Contour-fit, soft metal nosepiece adjusts closely over the bridge of the nose.



| Part No. | Description           | 1      | 10     | 25     |
|----------|-----------------------|--------|--------|--------|
| 645950   | 5 pack <b>R</b> ..... | \$4.49 | \$3.99 | \$3.59 |

## 3M Lens Cleaning Cloth

Dirt and particles are trapped within knitted tufts of the fibers. Rows and rows of tufts and valleys trap large and small particles.

- Material: polyester/nylon
- Size: 6"W x 7"L



| Part No. | Description                   | 1      | 10     | 25     |
|----------|-------------------------------|--------|--------|--------|
| 645896   | Cleaning cloth <b>R</b> ..... | \$2.69 | \$2.38 | \$2.14 |

## 3M Scotch-Brite™ #74 Medium Duty Scrub Sponge

It's a No. 96 scouring pad on one side and on the other is a cellulose sponge. • Size: 3.6"W x 6.1"L x 0.7"Th



| Part No. | Description                 | 1      | 10     | 25     |
|----------|-----------------------------|--------|--------|--------|
| 652199   | Scrub sponge <b>R</b> ..... | \$2.69 | \$2.41 | \$2.16 |

## #96 General Purpose Scour Pad

Synthetic scouring pad is excellent for common cleaning jobs.

- Color: green
- Size: 6"W x 9"L



| Part No. | Description              | 1      | 10     | 25     |
|----------|--------------------------|--------|--------|--------|
| 652181   | Scour pad <b>R</b> ..... | \$0.85 | \$0.73 | \$0.66 |

\* Shipped via UPS ground to continental U.S. only

**R** RoHS compliant product **+** This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.

## 3M Duct Tape 3900

Polyethylene coated cloth with rubber adhesive. Economy grade duct tape. A good choice for general maintenance, wrapping, sealing and protecting.

- 48mm W x 54.8m L



| Part No. | Product No.   | 1       | 10      | 25     |
|----------|---|---------|---------|--------|
| 652068   | 3M 06976 (silver)  | \$10.99 | \$10.09 | \$9.59 |

## 3M Super 33+ Electrical Tape

This tape provides flexibility and easy handling for all around performance. It combines PVC backing with excellent electrical insulating properties to provide primary electrical insulation for splices up to 600V and protective jacketing. Excellent resistance to UV rays, abrasion, moisture, copper corrosion, alkalis and acids, and is flame-retardant. Excellent all-weather performance in cold to 0°F (-18°C). Designed to perform in a continuous temperature environment up to 220°F (105°C).

- UL listed and CSA certified
- Tape color: black • 3/4"W x 66'L



| Part No. | Product No.  | 1      | 10     | 25     |
|----------|--|--------|--------|--------|
| 285464   | 3M 06132  | \$4.59 | \$4.24 | \$4.21 |

## 3M Tartan 1710 Electrical Tape

3M™ Tartan™ 1710 vinyl insulating tape offers good resistance to abrasion, moisture, alkalis, acid, copper corrosion and varying weather conditions (including ultraviolet).

- UL listed • 3/4"W x 60'L
- Flame retardant












| Part No. | Product No.  | 1      | 10     | 25     |
|----------|--|--------|--------|--------|
| 285587   | 3M 49656 (black)  | \$0.95 | \$0.89 | \$0.86 |

## 3M Scotch® 35 Vinyl Electrical Tape


Identify leads, splices, and terminations. Abrasion and weather resistant 7 mil tape. Excellent mechanical and electrical insulation properties. Wraps smoothly and holds tightly over a wide range of temperatures.

- 3/4"W x 66'L



| Part No. | Product No.   | 1      | 10     | 25     |
|----------|---|--------|--------|--------|
| 652076   | 3M 10810 (red)     | \$5.89 | \$4.45 | \$4.12 |
| 652084   | 3M 10869 (orange)  | \$5.89 | 4.45   | 4.12   |
| 652092   | 3M 11271 (violet)  | \$5.89 | 4.45   | 4.12   |
| 652105   | 3M 10828 (white)   | \$5.89 | 4.45   | 4.12   |
| 652113   | 3M 10885 (brown)   | \$5.89 | 4.45   | 4.12   |
| 652121   | 3M 00072 (gray)    | \$5.89 | 4.45   | 4.12   |
| 652130   | 3M 10836 (blue)    | \$5.89 | 4.45   | 4.12   |
| 652148   | 3M 10851 (green)   | \$5.89 | 4.45   | 4.12   |
| 652156   | 3M 10844 (yellow)  | \$5.89 | 4.45   | 4.12   |

- 5 rolls: blue, green, red, yellow & white • 1/2"W x 20'L

| Part No. | Product No.  | 1      | 5      | 10     |
|----------|--|--------|--------|--------|
| 287806   | 3M 10457  | \$8.39 | \$7.59 | \$6.99 |

## 3M Double-Sided Foam Tape

Used in a wide variety of applications, this tape features high-shear acrylic adhesive and high temperature resistance. Adheres securely to any surface with its double-sided adhesive. 1/8" thick open-cell urethane foam carrier. Ideal for many manufacturing applications.

- 1/8" thick • 1"W x 12'L



Lower \$\$\$

| Part No. | Product No.   | 1       | 5       | 10      |
|----------|---|---------|---------|---------|
| 285907   | 3M 4008  | \$13.49 | \$12.39 | \$11.27 |


## 3M Double Coated Urethane Foam Tape

1/16" thick neutral, open cell urethane foam flexible carrier with high shear, high temperature resistant acrylic adhesive. Use to fill gaps and bond irregular surfaces. Distributes stress uniformly over bonded area. Apply by hand or with dispenser.

- 1"W x 18'L

Lower \$\$\$



| Part No. | Product No.  | 1       | 5       | 10      |
|----------|--|---------|---------|---------|
| 645941   | 3M 06440  | \$16.95 | \$12.79 | \$11.65 |



## 3M Hook and Loop Fastening System

Nylon hooks mesh with pliable loops. 1" wide strip with adhesive backing sticks instantly to many surfaces.

- Hook and loop: 1"W x 3"L
- Two pair



645909

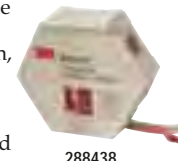
| Part No. | Product No.  | 1      | 10     | 25     |
|----------|--|--------|--------|--------|
| 645917   | 3M 64293 (black)  | \$2.79 | \$2.46 | \$2.21 |
| 645909   | 3M 64294 (white)  | 2.79   | 2.46   | 2.21   |

## 3M Dual Lock Fastening System

3M™ Dual Lock™ reclosable fasteners have been used extensively in transportation, electronics, business equipment, machinery, medical, sign and display markets. When the mushroom-shaped stems interlock, tensile strength is high enough to replace mechanical fasteners, yet you can readily open and close Dual Lock fasteners hundreds of times. High temperature and solvent resistant.

- Adhesive backing for strong bonds • 1"W x 15'L
- 5x stronger than conventional hook & loop fasteners
- Audible snap assures secure closure



 Blue Part No. = Limited Quantity Available



288438

| Part No. | Product No.  | 1       | 5       | 10      |
|----------|--|---------|---------|---------|
| 288438   | 3M 06463 (clear)  | \$74.95 | \$71.19 | \$67.65 |

- Hook and loop: 1"W x 3"L • Two pair

| Part No. | Product No.  | 1      | 10     | 25     |
|----------|--|--------|--------|--------|
| 645925   | 3M 64284 (black)  | \$3.55 | \$3.14 | \$2.83 |
| 645933   | 3M 64254 (clear)  | 3.55   | 3.14   | 2.83   |

## 3M 130C Linerless Rubber Splicing Tape

This highly conformable, high voltage Ethylene Propylene rubber tape is ideal for a number of applications where its sealing properties are required. These include sealing collars, closure-sealing, drop wire splice insulating, sheath build-up and constructing auxiliary sleeves. Unlike most rubber tapes, Scotch® 130C is linerless which makes it easier and quicker to use. It provides a void-free, permanent seal every time.

- 3/4"W x 30'L



Lower \$\$\$

| Part No. | Product No.   | 1       | 5       | 10      |
|----------|---|---------|---------|---------|
| 652050   | 3M 4171  | \$13.35 | \$12.96 | \$11.66 |

## 3M Scotch® General Purpose Masking Tape

A very high temperature resistant tape for use in masking and holding applications where temperatures reach 250°F (121°C) up to 1 hour. A general purpose paper masking tape designed to be used in medium temperature paint bake operations.

- 24mm W x 55m L



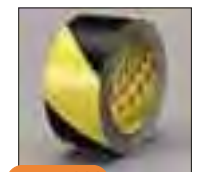
Lower \$\$\$

| Part No. | Product No.  | 1      | 10     | 25     |
|----------|--|--------|--------|--------|
| 652172   | 3M 02982  | \$6.99 | \$4.85 | \$4.44 |

## 3M Safety Stripe Tape

3M™ Safety Stripe Tape 5702 Black/Yellow, 5.4 mil (0.14 mm) vinyl backing with rubber adhesive, resists most common solvents.

- Color: black and yellow
- Size: 2" wide x 36 yards long



Lower \$\$\$

| Part No. | Product No.  | 1       | 24      |
|----------|--|---------|---------|
| 651882   | 5702  | \$39.99 | \$35.15 |

## 3M Vinyl Tape

The 3M™ Vinyl Tape 471 with rubber adhesive and vinyl backing provides a clean removal in any application. Conformable and dead stretch properties to provide straighter lines. Maintains color throughout even when exposed to heavy abrasion.

- Color: red • 5.2mil (0.13mm) thick
- Size: 2" wide x 36 yards long





Lower \$\$\$

| Part No. | Product No.   | 1       | 24      |
|----------|---|---------|---------|
| 645159   | 471  | \$34.99 | \$24.99 |

Over 99% of Our Catalog Products Are In Stock

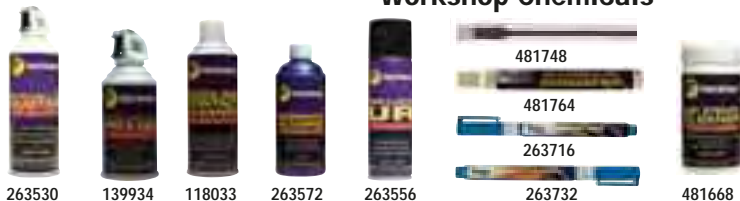
Place your order by 6PM EST for same business-day shipment.

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)





- Safe on plastics
- EPA SNAP approved, no CFCs or HCFCs



## Enviro-Tech™ Duster

Removes microscopic contaminants, lime, dust, metallic oxide, deposits, and other soils without the use of harmful solvents.

| Part No. | Description               | Wt. (lbs.) | 1      | 12     |
|----------|---------------------------|------------|--------|--------|
| 139900   | 10 oz. aerosol w/ trigger | 0.8 ...    | \$8.99 | \$8.19 |
| 263530   | 15 oz. aerosol w/ trigger | 0.8 ...    | 11.85  | 11.35  |

## Enviro-Tech™ Freezer

Rapidly evaporating liquid that can chill to -62°F.

| Part No. | Description        | Wt. (lbs.) | 1       | 12     |
|----------|--------------------|------------|---------|--------|
| 139934   | 10 oz. aerosol can | 0.8        | \$10.79 | \$9.65 |

## ECOLINE Flux Remover

- Dissolves R, RMA, RA, SA & most no-clean fluxes

| Part No. | Description         | Wt. (lbs.) | 1      | 12     |
|----------|---------------------|------------|--------|--------|
| 118041   | 10 oz. flux remover | 0.8 ...    | \$9.99 | \$9.05 |

## ECOLINE Contact Cleaner

- Ideal for switches, relays & other places on electrical connections
- Will not damage switch housings

| Part No. | Description            | Wt. (lbs.) | 1      | 12     |
|----------|------------------------|------------|--------|--------|
| 118033   | 10 oz. contact cleaner | 0.9 ..     | \$9.19 | \$8.35 |

## Isopropyl Alcohol

99.8%+ pure, anhydrous isopropanol for all-purpose cleaning. Excellent for tape head cleaning, removal of fluxes, light oils, polar soils, and white mineral residue.

Blue Part No. = Limited Quantity Available

| Part No. | Description   | Wt. (lbs.) | 1      | 12     |
|----------|---------------|------------|--------|--------|
| 263572   | 1 pint bottle | 1.1        | \$8.75 | \$7.89 |

## Static Sensitive Brush

- Bristle: 1/8"L x 1/16"W
- Handle: 3.5"

| Part No. | Description | Wt. (lbs.) | 1      | 5      |
|----------|-------------|------------|--------|--------|
| 481748   | Brush       | 0.1        | \$8.05 | \$7.69 |

## Fine-L-Kote™ Silicone Conformal Coating

A type SR silicone resin conformal coating that has excellent moisture and fungus resistance properties, offers chemical resistance and is recommended for harsh environments. Contains Opti/Scan™ to allow for black light inspection.

| Part No. | Description | Wt. (lbs.) | 1       | 12      |
|----------|-------------|------------|---------|---------|
| 481756   | 1 pint      | 1.1        | \$30.85 | \$29.41 |

## Fine-L-Kote™ Urethane Conformal Coating

As a urethane coating, this is highly resistant to most solvents, moisture, fungus, and molds. A clear, repairable coating, it is formulated with a black light indicator, Opti/Scan™, to provide checks for conformity in quality control.

| Part No. | Description | Wt. (lbs.) | 1       | 12      |
|----------|-------------|------------|---------|---------|
| 263556   | 12 oz. can  | 1.0        | \$16.89 | \$16.19 |

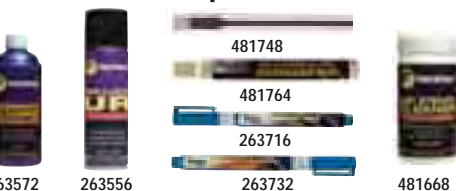
♣ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD. \* Shipped via UPS ground to continental U.S. only

RoHS compliant product

♣ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.

## Workshop Chemicals



## No-Clean Flux Dispensing Pen

The resin and halide-free no-clean flux will leave no residues. It provides optimum wetting over a wide range of surfaces and will not damage commonly used plastics.

| Part No. | Description | Wt. (lbs.) | 1      | 5      |
|----------|-------------|------------|--------|--------|
| 481764   | 11.5 ml pen | 0.1        | \$5.09 | \$5.01 |

## Conductive Pen

Contains a fast-drying, silver-filled ink designed to quickly make highly conductive silver traces.

- Repairs traces
- Makes smooth jumpers
- Links components
- Shields components

| Part No. | Description | Wt. (lbs.) | 1       | 12      |
|----------|-------------|------------|---------|---------|
| 263716   | 4.89 ml pen | 0.1        | \$15.99 | \$15.28 |

## Overcoat Green Pen

Designed to insulate printed circuit board traces and components against high voltage arcing, and provides protection from moisture.

- Protects conductive pen traces
- Repairs permanent solder mask

Blue Part No. = Limited Quantity Available

| Part No. | Description | Wt. (lbs.) | 1       | 12      |
|----------|-------------|------------|---------|---------|
| 263732   | 5 ml pen    | 0.1        | \$11.49 | \$10.54 |

## SMT Stencil Cleaner

Hydrocarbon-based, non-ozone depleting stencil cleaner effectively removes solder paste from screens, misprinted boards, and equipment.

| Part No. | Description           | Wt. (lbs.) | 1       | 12      |
|----------|-----------------------|------------|---------|---------|
| 481668   | 48 wipes              | 0.4        | \$14.75 | \$14.03 |
| 481676   | 1 pint trigger bottle | 1.1        | 15.25   | 14.49   |

## Zero Charge™ Hand Lotion

Lower \$\$\$

Contains natural products including aloe vera and vitamins A and E. Moisturizers penetrate rapidly leaving skin soft and non-greasy. Improves the contact between personnel and grounding devices such as wrist and heel straps.

| Part No. | Description  | Wt. (lbs.) | 1      | 24     |
|----------|--------------|------------|--------|--------|
| 481684   | 8 oz. bottle | 1.2        | \$5.09 | \$4.48 |

## Zero Charge™ Anti-Static Coating

Fast drying, anti-static coating, eliminates static charge and reduces triboelectric generation from most surfaces. Recommended for applications that experience flexing and movement.

| Part No. | Description   | Wt. (lbs.) | 1       | 12     |
|----------|---------------|------------|---------|--------|
| 481692   | 1 pint bottle | 1.1        | \$10.29 | \$7.79 |

## Zero Charge™ Mat and Table-Top Cleaner

A neutral pH cleaner for general use in production areas that removes insulating contaminants such as flux residues, oils, greases, nicotine, dirt and grime.

| Part No. | Description    | Wt. (lbs.) | 1      | 12     |
|----------|----------------|------------|--------|--------|
| 481705   | 2 oz. bottle   | 0.4        | \$6.05 | \$5.72 |
| 481713   | 1 quart bottle | 2.2        | 11.59  | 10.37  |



## Zero Charge™ Screen & Keyboard Cleaner

With regular use, this cleaner will eliminate static charge from sensitive surfaces and provide a long term protection. Removes hand oils, ink marks, dust, fingerprints, nicotine, syrup, carbon, and other soils from work areas.

| Part No. | Description   | Wt. (lbs.) | 1       | 12      |
|----------|---------------|------------|---------|---------|
| 481721   | 1 pint bottle | 1.1        | \$10.59 | \$10.21 |

## Quick Test® Detector Activation Spray

This non-flammable aerosol is safe on the ozone layer while eliminating the risk of fire. A unique vertical actuator that when depressed, sprays a cloud of simulated smoke toward the detector setting off the alarm.

Lower \$\$\$

| Part No. | Description     | Wt. (lbs.) | 1      | 12     |
|----------|-----------------|------------|--------|--------|
| 481730   | 2.5 oz. aerosol | 0.3        | \$5.59 | \$4.62 |



## Freeze Spray

- Safe on plastics
- Nonflammable
- Wide spray for cooling entire boards
- Ozone safe

| Part No. | Description        | Wt. (lbs.) | 1       | 5       |
|----------|--------------------|------------|---------|---------|
| 525915   | 10 oz. aerosol can | 0.8        | \$11.39 | \$10.29 |

## Glass & Plastic Cleaner

- Controls static, cleans and polishes in one application
- Compatible with plastics, glass and stainless steel
- Foaming spray won't run or drip; ideal for optical surfaces

Quantity SAVE

| Part No. | Description        | Wt. (lbs.) | 1       | 5      |
|----------|--------------------|------------|---------|--------|
| 525974   | 14 oz. aerosol can | 1.1        | \$11.09 | \$8.32 |

## Chemask

- Easy to use – peel off dried Chemask® masking agent
- Latex material is compatible with flux systems and stable with cleaning solvents

| Part No. | Description          | Wt. (lbs.) | 1       | 5       |
|----------|----------------------|------------|---------|---------|
| 525835   | 8 oz. squeeze bottle | 0.7        | \$13.25 | \$12.71 |

## Chem Pads

- Ultra pure blend of 91% IPA/9% deionized water
- Mild cleaning solution, nonabrasive wipe
- Pack of 50 3" x 4" presaturated pads

| Part No. | Description             | Wt. (lbs.) | 1       | 5       |
|----------|-------------------------|------------|---------|---------|
| 525843   | 3"x4" presaturated pads | 0.7        | \$23.89 | \$21.56 |

## Double Head Cottontip Swabs

- Soft & highly absorbent compatible w/ most solvents

| Part No. | Description    | Wt. (lbs.) | 1      | 5      |
|----------|----------------|------------|--------|--------|
| 525851   | 6" cotton swab | 0.1        | \$3.89 | \$3.77 |

See Complete Chemtronics Chemicals Offering at [www.Jameco.com/Prod/Chemtronics](http://www.Jameco.com/Prod/Chemtronics)



## Chemicals

**Air Jet® & Freeze Mist**  
**HCFC Contact Cleaners**  
**Solder Flux & Flux Removers**  
**Lubricants Adhesives**  
**Coatings, Thinners & Solvents**  
**Applicators, Brushes, Swabs & Wipes**

These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

See Complete GC Chemicals Offering at [www.Jameco.com/Prod/GCChemicals](http://www.Jameco.com/Prod/GCChemicals)

## DATA Direct Etch PCB "Starter" Set

Includes: 4 blank circuit boards, dry concentrated ferric chloride etchant, instructions, 8 sheets of direct etch donuts, DIP, patterns, lines and 1/32" & 1/16" etch resist tape.

| Part No. | Product No. | Wt. (lbs.) | 1       | 10      |
|----------|-------------|------------|---------|---------|
| 70412    | ER1*        | 0.7        | \$11.95 | \$10.95 |

## DATA Pre-Sensitized Circuit Boards & Developer

- Pre-coated circuit board
- Size: 3.0"L x 4.0"W x 1/16" T

Includes: Instructions

| Part No. | Description           | Wt. (lbs.) | 1      | 10     | 25     |
|----------|-----------------------|------------|--------|--------|--------|
| 156751   | Single sided          | —          | \$4.95 | \$4.49 | \$3.95 |
| 156742   | Double sided          | —          | 6.49   | 5.85   | 5.25   |
| 156734   | 4 oz. Pos. developer* | 0.6        | 6.95   | 5.95   | 4.95   |

## DATA Dry Concentrated Etchant

- Makes one pint of etch solution

| Part No. | Product No. | 1      | 10     | 25     |
|----------|-------------|--------|--------|--------|
| 70201    | ER3*        | \$3.95 | \$3.49 | \$3.15 |


## DATA Photo Etch™ Printed Circuit Kit

Generate your own 1:1 artwork. Then use the patented Fast Neg film process to make a photo negative and sensitize and expose a blank copper board. Finish by developing & etching. No camera or darkroom is required.

| Part No. | Product No. | Wt. (lbs.) | 1       | 10      |
|----------|-------------|------------|---------|---------|
| 16731    | 12-750*     | 4.6        | \$39.95 | \$36.95 |

## Acid Brush

- Used for application of reactive solvents



| Part No. | Description  | 1      | 10     | 100    | 1000   |
|----------|--|--------|--------|--------|--------|
| 153322   | Metal handle, 6"  | \$0.65 | \$0.59 | \$0.49 | \$0.37 |

\*Shipped via UPS ground to continental U.S. only

## Jameco's Got The Docs

We offer free technical documents for most of the products we carry. Find them easily on the product specification pages at [www.Jameco.com](http://www.Jameco.com).

◆ This product ships from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

 RoHS compliant product  This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)

## Circuit Boards

### Bare Copper Circuit Boards

One ounce copper (0.0014") on base of either fiberglass or reinforced epoxy board. 1/16" thick.

| Single-Sided Boards |             | 616518             |        |        |        |  |
|---------------------|-------------|--------------------|--------|--------|--------|--|
| Part No.            | Product No. | Size               | 1      | 10     | 50     |  |
| 616471              | 22-250      | 3" x 5" ....       | \$2.69 | \$2.53 | \$2.23 |  |
| 616489              | 22-260      | 4" x 6" ..... 3.59 | 3.35   | 2.95   |        |  |
| 616497              | 22-261      | 6" x 6" ..... 4.99 | 4.66   | 4.11   |        |  |
| 616500              | 22-263      | 6" x 9" ..... 5.69 | 5.32   | 4.69   |        |  |
| 616518              | 22-264      | 8" x 10" .... 8.89 | 8.32   | 7.34   |        |  |
| 616534              | 22-268      | 11" x 14" .. 17.75 | 15.09  | 13.19  |        |  |

| Double-Sided Board |             | 616526       |        |        |        |  |
|--------------------|-------------|--------------|--------|--------|--------|--|
| Part No.           | Product No. | Size         | 1      | 10     | 50     |  |
| 616526             | 22-267      | 6" x 9" .... | \$6.09 | \$5.72 | \$5.05 |  |

**Assortment's Single Sided Boards**

- 1 each 2" x 4.5" and 3" x 4.5"
- 2 each 2.25" x 3"

| Part No. | Product No. | 1      | 10     | 50     |
|----------|-------------|--------|--------|--------|
| 616551   | 22-272      | \$5.49 | \$5.13 | \$4.51 |

### Positive Pre-Sensitized Circuit Boards

1 oz. copper (0.0014") on 1/16" epoxy glass board, UL94V-0 rated. High quality positive pre-sensitized board is double protected from light and handling damage. The peel-off coating protects the board while handling or cutting prior to exposure.

| Single-Sided Boards |             | 616201             |        |        |        |  |
|---------------------|-------------|--------------------|--------|--------|--------|--|
| Part No.            | Product No. | Size               | 1      | 10     | 50     |  |
| 616201              | 21-243      | 3" x 6" ....       | \$4.45 | \$4.18 | \$3.69 |  |
| 616219              | 21-247      | 7" x 10" .. 11.75  | 10.95  | 9.67   |        |  |
| 616227              | 21-252      | 12" x 12" .. 27.15 | 25.75  | 24.47  |        |  |
| 616235              | 21-330      | 2" x 4" ..... 4.29 | 4.07   | 3.87   |        |  |
| 616243              | 21-332      | 3" x 4" ..... 5.29 | 5.00   | 4.75   |        |  |
| 616251              | 21-334      | 4" x 6" ..... 5.35 | 4.99   | 4.40   |        |  |
| 616260              | 21-336      | 6" x 6" ..... 5.99 | 5.58   | 4.92   |        |  |
| 616278              | 21-338      | 6" x 9" ..... 8.99 | 7.64   | 6.95   |        |  |

| Double-Sided Boards |             | 616286              |        |        |        |  |
|---------------------|-------------|---------------------|--------|--------|--------|--|
| Part No.            | Product No. | Size                | 1      | 10     | 50     |  |
| 616286              | 21-339      | 3" x 4" ....        | \$4.25 | \$3.99 | \$3.52 |  |
| 616294              | 21-350      | 6" x 6" ..... 8.15  | 7.59   | 6.70   |        |  |
| 616307              | 21-353      | 6" x 9" ..... 11.55 | 10.80  | 9.53   |        |  |
| 616315              | 21-357      | 12" x 12" .. 29.35  | 27.85  | 26.46  |        |  |

### Circuit Board Drafting Patterns

An 8.5" x 11" sheet containing 2 dozen of the most commonly used pre-spaced component configurations. Self-adhesive pads may easily be removed from master sheet with a precision knife (recommend P/N 72768, pg 292).

| Part No. | Product No. | 1      | 10     | 50     |
|----------|-------------|--------|--------|--------|
| 616323   | 21-377      | \$4.69 | \$4.35 | \$3.84 |

### Copper Circuit Tape

Six foot roll of 1/8" wide self-adhesive copper tape for quick repairs and modifications. Adheres easily to PC boards and similar surfaces, solder-ready. Low resistance, 0.002" thick.

| Part No. | Product No. | 1      | 10     | 50     |
|----------|-------------|--------|--------|--------|
| 616657   | 22-509      | \$3.79 | \$3.55 | \$3.14 |

## Prototype Boards

### Export Design Phenolic Prototype Board

Accommodates all types of IC's, transistor packages and passive parts. Lands and bus bars are tin plated.

- 0.1" centers
- Size: 3 1/8"W x 5 1/16"L x 1/16" thick

| Part No. | Product No. | 1      | 10     | 50     |
|----------|-------------|--------|--------|--------|
| 616631   | 22-504      | \$4.05 | \$3.80 | \$3.35 |

### Experimenter's Phenolic Prototype Boards

Save time and money with ready-to-use printed circuit boards. Excellent for use in prototype building, experimenting, hobby or science projects and kit building. 0.03" punched holes on 0.150" centers.

| 616649:  |             | 616673  |        |        |        |  |
|----------|-------------|---|--------|--------|--------|--|
| Part No. | Product No. | Description   | 1      | 10     | 50     |  |
| 616649   | 22-508      | Copper plated terminals and two 40-point bus strips | \$9.25 | \$8.65 | \$7.63 |  |
| 616665   | 22-510      | Quad land patt.                                     | 5.29   | 4.96   | 4.37   |  |
| 616673   | 22-512      | Sngl. land patt.                                    | 5.29   | 4.50   | 4.25   |  |

### Versa Strip Phenolic Prototype Board

| 616622   |             | 22-502 |        |        |  |  |
|----------|-------------|--------|--------|--------|--|--|
| Part No. | Product No. | 1      | 10     | 50     |  |  |
| 616622   | 22-502      | \$6.19 | \$5.77 | \$5.09 |  |  |

### Perforated Bare Phenolic Prototype Boards

Unexcelled for prototypes, breadboards, hobby or science projects. Bare phenolic board with no copper clad.

| 616681:  |             | 616690 |        |        |  |  |
|----------|-------------|--------|--------|--------|--|--|
| Part No. | Product No. | 1      | 10     | 50     |  |  |
| 616681   | 22-514      | \$4.59 | \$4.32 | \$3.81 |  |  |
| 616690   | 22-516      | 5.29   | 4.96   | 4.37   |  |  |
| 616702   | 22-518      | 5.85   | 4.97   | 4.81   |  |  |

### Plug-In IC Phenolic Prototype Board

| 616614   |             | 22-500 |        |        |  |  |
|----------|-------------|--------|--------|--------|--|--|
| Part No. | Product No. | 1      | 10     | 50     |  |  |
| 616614   | 22-500      | \$2.45 | \$2.33 | \$2.21 |  |  |



## General Purpose Prototyping Boards

Select the prototype board that fits your needs from our comprehensive product listing. Prototyping boards with punched holes are convenient, economical tools for assembling circuit components and trying cost-effective alternatives to custom designs.

- 0.062" board thickness
- 0.1" hole spacing
- 0.08" pad size
- PCB material epoxy glass
- Plating through pads are double-sided

106551



206578



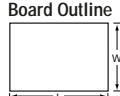
21435



52943



21477



Board Outline



A  
Holes Only



B  
Pad Per Hole



C  
Power/Ground Perimeter Bus with Pad Per Hole



D  
3 Hole Solder Pad and Bus

See PCB enclosures on pg 307, mounting hardware (recommend P/N 106551) below

| Part No. | Cross Ref. Number | Size (W" x L") | Fits Enclosure(s) (see page 306) | Circuit Pattern | Hole Pads      | # Holes x Dia. ↑ | Power/Ground Buses | Connector I/O or Edge | # Mounting Holes x Dia. | Wt. (lbs.) | Pricing |        |        |        |
|----------|-------------------|----------------|----------------------------------|-----------------|----------------|------------------|--------------------|-----------------------|-------------------------|------------|---------|--------|--------|--------|
|          |                   |                |                                  |                 |                |                  |                    |                       |                         |            | 1       | 10     | 50     | 100    |
| 105100   | 2855PCB           | 1.60 x 2.70    | 18922                            | B               | Single-sided   | 288 x .035"      | None               | None                  | 2 x .115"               | .02        | \$5.25  | \$4.73 | \$4.25 | \$3.83 |
| 105101   | 5002PCB           | 1.50 x 3.50    | 11957                            | C               | Single-sided   | 365 x .038"      | 4                  | None                  | 2 x .140"               | .02        | 6.95    | 6.26   | 5.00   | 3.75   |
| 263186   | PCB-403           | 1.80 x 3.10    | 18922                            | B               | Plated through | 300 x .042"      | None               | None                  | 4 x .115"               | .03        | 6.95    | 6.25   | 5.63   | 5.09   |
| 105129   | 2853PCB           | 2.00 x 4.40    | 18914, 11965                     | C               | Single-sided   | 669 x .038"      | 4                  | None                  | 4 x .140"               | .03        | 7.95    | 6.95   | 6.25   | 5.59   |
| 105111   | 2300PCB           | 2.40 x 3.40    | 11869                            | C               | Single-sided   | 637 x .038"      | 4                  | None                  | 2 x .140"               | .03        | 7.95    | 6.95   | 6.25   | 5.59   |
| 263207   | PCB-463           | 2.40 x 4.10    | N/A                              | B               | Plated through | 640 x .042"      | None               | None                  | 4 x .120"               | .05        | 8.95    | 8.09   | 7.25   | 6.55   |
| 263215   | PCB-858           | 2.50 x 4.50    | 18914                            | B               | Plated through | 640 x .042"      | None               | None                  | 4 x .120"               | .05        | 8.95    | 8.09   | 7.25   | 6.55   |
| 105152   | 2851PCB           | 3.10 x 5.50    | 18893                            | C               | Single-sided   | 1450 x .035"     | 7                  | None                  | 4 x .140"               | .07        | 9.95    | 8.95   | 7.95   | 5.96   |
| 263223   | PCB-69            | 3.30 x 3.70    | N/A                              | B               | Single-sided   | 900 x .042"      | None               | None                  | 4 x .120"               | .05        | 8.95    | 8.09   | 7.25   | 6.55   |
| 105137   | 2320PCB           | 3.30 x 4.50    | 11885                            | C               | Single-sided   | 1266 x .035"     | 4                  | None                  | 4 x .140"               | .06        | 9.95    | 8.95   | 7.95   | 6.95   |
| 105162   | 2852PCB           | 3.60 x 7.00    | 18906, 11973                     | B               | Single-sided   | 2225 x .035"     | 4                  | None                  | 4 x .140"               | .10        | 14.95   | 13.45  | 11.95  | 10.95  |
| 206586   | 2746APCB          | 4.30 x 6.80    | 209350                           | C               | Single-sided   | 2550 x .042"     | 5                  | None                  | 4 x .140"               | .07        | 10.95   | 9.86   | 8.87   | 7.98   |
| 21435    | JE401(8001)       | 4.50 x 6.50    | 18869                            | B/D             | Single-sided   | 2360 x .042"     | 2                  | None                  | None                    | .12        | 21.95   | 19.76  | 17.78  | 16.00  |
| 21452    | JE405(8003)       | 4.50 x 6.50    | 18869                            | C               | Single-sided   | 2360 x .042"     | 1                  | None                  | None                    | .12        | 19.95   | 17.95  | 14.36  | 10.77  |
| 206578   | 2743APCB          | 4.60 x 4.30    | 208911                           | C               | Single-sided   | 1684 x .042"     | 5                  | None                  | 4 x .140"               | .07        | 7.49    | 6.74   | 6.07   | 5.46   |
| 105179   | 2505PCB           | 5.00 x 6.50    | 11893, 18869                     | C               | Single-sided   | 2829 x .035"     | 7                  | None                  | 8 x .120"               | .13        | 14.95   | 13.49  | 11.95  | 10.90  |
| 21477    | JE407(8006)       | 5.00 x 13.25   | N/A                              | B               | Plated through | 6063 x .038"     | None               | None                  | 8 x .120"               | .28        | 41.19   | 37.07  | 29.66  | 22.24  |
| 206594   | 2747APCB          | 5.50 x 8.00    | 209358                           | C               | Single-sided   | 3906 x .042"     | 5                  | None                  | 4 x .140"               | 1.0        | 14.99   | 13.49  | 10.79  | 8.09   |
| 105187   | 2507PCB           | 6.10 x 8.80    | 18877                            | C               | Single-sided   | 4771 x .035"     | 7                  | None                  | 8 x .140"               | .21        | 29.95   | 26.96  | 21.56  | 16.17  |
| 263232   | PCB-7038          | 8.30 x 11.9    | N/A                              | B               | Plated through | 8819 x .042"     | 10                 | 5                     | 4 x .115"               | .40        | 55.95   | 52.19  | 49.59  | 47.09  |
| 263249   | PCB-6088          | 9.20 x 13.0    | N/A                              | B               | Plated through | 11,000 x .042"   | 10                 | None                  | 13 x .115"              | .50        | 55.95   | 52.19  | 49.59  | 47.09  |

## Other Manufacturers — Great Deals

|       |      |             |       |   |                |              |      |                   |           |     |        |        |        |        |
|-------|------|-------------|-------|---|----------------|--------------|------|-------------------|-----------|-----|--------|--------|--------|--------|
| 28177 | PCB1 | 2.42 x 4.10 | 18914 | C | Plated through | 674 x .040"  | None | None              | 4 x .120" | .04 | \$5.95 | \$5.35 | \$4.79 | \$4.29 |
| 28193 | PCB3 | 5.00 x 8.00 | 18877 | C | Plated through | 3705 x .042" | 4    | Mounting area-I/O | 4 x .120" | .17 | 21.95  | 19.76  | 17.78  | 16.22  |

## Vector Products

|        |   |              |       |   |              |                |      |      |      |     |        |        |        |        |
|--------|---|--------------|-------|---|--------------|----------------|------|------|------|-----|--------|--------|--------|--------|
| 43140  | 64P4400XP   | 4.50 x 6.50* | 18869 | A | Drilled only | 2860 x .042"   | None | None | None | .09 | \$6.09 | \$6.06 | \$6.03 | \$6.01 |
| 52943  | 84P44WE   | 4.50 x 8.50  | 18877 | A | Drilled only | 3740 x .042"   | None | None | None | .15 | 9.55   | 9.49   | 9.45   | 9.42   |
| 37604  | 169P44WE  | 4.50 x 17.0  | N/A   | A | Drilled only | 7524 x .042"   | None | None | None | .31 | 18.45  | 17.55  | 16.75  | 15.95  |
| 37612  | 169P4400XP  | 4.50 x 17.0* | N/A   | A | Drilled only | 7524 x .042"   | None | None | None | .25 | 11.25  | 11.19  | 11.14  | 11.08  |
| 37621  | 169P84WE  | 8.50 x 17.0  | N/A   | A | Drilled only | 14,448 x .042" | None | None | None | .53 | 22.89  | 22.79  | 22.69  | 22.54  |
| 106551 | 20 pieces PC board mounting hardware (4 spacers, 8 screws and 8 washers) used with all above boards |              |       |   |              |                |      |      |      |     | 2.35   | 2.17   | 1.91   | 1.78   |

\* PCB material: phenolic

↑ All 0.042" diameter hole boards use terminals T44, T49, and T421 (see below)

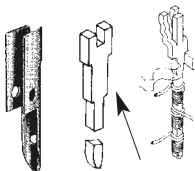
⬢ Blue Part No. = Limited Quantity Available



## Wire Wrap and Push-In Terminals

For .042" Diameter Holes

- Material: copper alloy
- Prebagged 100 pcs.
- 34147: Push-In Micro-Klip Terminals
- Overall length: .36" • Post size: .032" x .045"
- 34155: Miniwrap Wiring Terminals
- Shoulder: .045"
- Two-prong with square tail for wire wrapping
- Overall length: .69" • Post size: .025"Sq.
- 34163: Klipwrap Wiring Terminals
- Shoulder: .045"
- Three-prong with square tail for wire wrapping
- Overall length: .83" • Post size: .025"Sq.



34147 34155 34163

| Part Number | Product Number | Height Above .062" Board | Length Below .062" Board | 100 pc. units |        |
|-------------|----------------|--------------------------|--------------------------|---------------|--------|
|             |                |                          |                          | 1             | 10     |
| 34147       | T421           | .200                     | .097                     | \$7.29        | \$6.95 |
| 34155       | T44            | .065                     | .530                     | 9.95          | 7.75   |
| 34163       | T49            | .200                     | .530                     | 11.89         | 11.19  |



## Copper-Plated Blank Circuit Boards

Ideal for hobbyists & students doing prototypes of circuits. Single and double-sided boards are copper plated.

- 1.6mm thick



Fig. 1



Fig. 2



Fig. 3

| Single-Sided |                |                |      |            |        |        |        |  |  |
|--------------|----------------|----------------|------|------------|--------|--------|--------|--|--|
| Part No.     | Cross Ref. No. | Size (L" x W") | Fig. | Wt. (lbs.) | 1      | 10     | 50     |  |  |
| 169279       | PCBS3X6        | 3.0 x 6.0      | 3    | 0.1        | \$3.49 | \$3.14 | \$2.36 |  |  |
| 169288       | PCBS6X6        | 6.0 x 6.0      | 2    | 0.2        | 4.95   | 4.46   | 3.56   |  |  |
| 169296       | PCBS12X12      | 12.0 x 12.0    | 1    | 0.5        | 13.49  | 12.14  | 10.93  |  |  |
| Double-Sided |                |                |      |            |        |        |        |  |  |
| Part No.     | Cross Ref. No. | Size (L" x W") | Fig. | Wt. (lbs.) | 1      | 10     | 50     |  |  |
| 169309       | PCBD3X6        | 3.0 x 6.0      | 3    | 0.1        | \$5.25 | \$4.73 | \$4.25 |  |  |
| 169317       | PCBD6X6        | 6.0 x 6.0      | 2    | 0.2        | 7.95   | 7.16   | 5.72   |  |  |
| 169325       | PCBD12X12      | 12.0 x 12.0    | 1    | 0.7        | 17.95  | 16.16  | 12.92  |  |  |

## PT Series Prototyping Boards

Accommodates any mixture of 0.3" to 0.6" wide IC's with any number of pins, and any combination of resistors, capacitors, diodes, transistors, etc.

- 4 power buses that connect to a power jack (recommended P/Ns 101179 & 101186, pg 162)

| Part No. | Cross Ref. No. | Size          | Hole Pads    | # Holes x Dia. | # Mntg Holes x Dia. | 1       | 5       | 10      |
|----------|----------------|---------------|--------------|----------------|---------------------|---------|---------|---------|
| 645677   | PT-35X25       | 3.5"L x 2.5"W | Double-sided | 456 x .036"    | 4 x .140"           | \$17.75 | \$16.85 | \$16.45 |
| 262511   | PT-5X37        | 5"L x 3.7"W   | Double-sided | 1135 x .036"   | 4 x .140"           | 24.75   | 22.95   | 21.79   |
| 262537   | PT-6X49        | 6"L x 4.9"W   | Double-sided | 1931 x .036"   | 4 x .140"           | 32.49   | 30.89   | 29.35   |



262511



262537



645677

⬢ RoHS compliant product

⬢ This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.

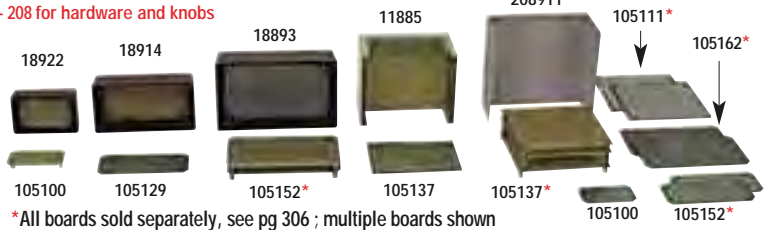
**JAMECO ValuePro**

The prototype builder boards on pg 306 are designed to fit into our ABS plastic and aluminum enclosures, metal cabinets and heavy-duty instrument cases. The pre-cut boards have 2 or 4 mounting holes compatible with the PC board mounting hardware listed on pg 306 (P/N 106551).

**Board description:** Laminated glass epoxy 1/16" thick fire retardant per FR-4 specs. Copper-clad and solder mask one side. Drilled holes: .035" diameter on .080" square pad. Pads spaced on .10" x .10" grid.

## Enclosures

See pages 204 - 208 for hardware and knobs



\*All boards sold separately, see pg 306 ; multiple boards shown

Call for additional OEM pricing.

## ABS Plastic Enclosures

Lid has a lip for precision fit (adds 0.4" height). Complete with four screws and lid. All sizes below are for interior dimensions.

| Part No. | Cross Ref. No. | Size (L x W x D)   | Wt. (lbs.) | 1      | 10     | 50     | 100    |
|----------|----------------|--------------------|------------|--------|--------|--------|--------|
| 18922    | H2855          | 3.1" x 2.0" x 0.9" | 0.1        | \$3.15 | \$2.84 | \$2.55 | \$2.30 |
| 18914    | H2853          | 4.9" x 2.5" x 1.5" | 0.2        | 3.69   | 3.32   | 2.99   | 2.69   |
| 18893    | H2851          | 6.0" x 3.5" x 1.9" | 0.4        | 4.79   | 4.31   | 3.88   | 3.49   |
| 18906    | H2852          | 7.5" x 4.3" x 2.3" | 0.5        | 6.89   | 6.20   | 5.58   | 5.02   |

## Die-Cast Aluminum Enclosures

Ideal for RF circuits. Made from aluminum, an excellent heat-sink, these cases are great for high temp circuits (up to 600°C). Complete with screws.

| Part No. | Cross Ref. No. | Size (L x W x D)   | Wt. (lbs.) | 1      | 10     | 50     | 100    |
|----------|----------------|--------------------|------------|--------|--------|--------|--------|
| 11957    | B5002          | 3.9" x 2.0" x 1.0" | 0.2        | \$5.95 | \$5.39 | \$4.85 | \$4.35 |
| 11965    | B5004          | 4.7" x 2.4" x 1.6" | 0.4        | 8.49   | 7.64   | 6.88   | 6.19   |
| 11973    | B5006          | 7.5" x 4.3" x 2.4" | 1.2        | 13.95  | 12.56  | 11.30  | 10.17  |

## Aluminum Enclosures

Lower \$\$\$

Put them in an economical aluminum enclosure. The enclosure comes in two pieces which slide together.

| Part No. | Cross Ref. No. | Size (L x W x D)   | Wt. (lbs.) | 1      | 10     | 50     | 100    |
|----------|----------------|--------------------|------------|--------|--------|--------|--------|
| 11869    | B2300          | 4.0" x 2.0" x 2.8" | 0.2        | \$5.45 | \$4.69 | \$4.22 | \$3.79 |
| 11885    | B2320          | 5.0" x 4.0" x 3.0" | 0.4        | 7.89   | 7.10   | 5.68   | 4.26   |
| 11893    | B2335          | 7.0" x 6.2" x 4.6" | 0.8        | 10.95  | 9.25   | 8.29   | 7.49   |

## Metal Enclosures

- Mounting screws and rubber feet included
- Glossy black textured steel top cover and ivory aluminum base

| Part No. | Cross Ref. No. | Size (L x W x D)   | Wt. (lbs.) | 1      | 10     | 50     | 100    |
|----------|----------------|--------------------|------------|--------|--------|--------|--------|
| 208901   | B2741A         | 4.0" x 3.3" x 2.2" | 0.4        | \$6.49 | \$5.89 | \$5.29 | \$3.96 |
| 208911   | B2743A         | 5.9" x 5.3" x 3.0" | 0.8        | 7.99   | 7.19   | 6.49   | 5.89   |
| 208929   | B2744A         | 7.3" x 6.3" x 2.8" | 1.1        | 8.99   | 8.09   | 6.47   | 5.68   |
| 209350   | B2746A         | 6.3" x 7.8" x 2.5" | 0.9        | 12.35  | 11.12  | 8.89   | 6.67   |
| 209358   | B2747A         | 7.5" x 9.8" x 3.2" | 1.4        | 14.99  | 13.49  | 10.79  | 8.15   |

## ABS Heavy-Duty Instrument Cases

P/N 18877 includes ventilation and speaker sound slots. • Color: gray

| Part No. | Cross Ref. No. | Size (L x W x D)    | Wt. (lbs.) | 1      | 10     | 50     | 100    |
|----------|----------------|---------------------|------------|--------|--------|--------|--------|
| 18869    | H2505          | 7.9" x 6.3" x 2.5"  | 0.8        | \$7.89 | \$7.10 | \$6.39 | \$5.75 |
| 18877    | H2507          | 10.0" x 7.5" x 3.1" | 1.4        | 8.99   | 7.99   | 7.28   | 6.55   |

## ABS Enclosures w/ Clear Tops

Includes screws for mounting boards or electronic components, rubber gasket for a tight seal on your equipment & drilled holes for mounting.

| Part No. | Cross Ref. No. | Size (L x W x D)   | Wt. (lbs.) | 1      | 10     | 50     | 100    |
|----------|----------------|--------------------|------------|--------|--------|--------|--------|
| 141832   | 203C1          | 4.6" x 3.2" x 1.8" | 0.3        | \$8.95 | \$8.09 | \$7.25 | \$6.55 |
| 141840   | 203D1          | 6.5" x 3.4" x 2.2" | 0.4        | 9.95   | 8.99   | 8.09   | 7.25   |
| 141859   | 203F1          | 7.3" x 5.7" x 3.0" | 0.8        | 11.95  | 10.79  | 9.69   | 8.69   |

## Bug Boxes

- Anti-static plastic
- Fits in bug cage (P/N 11332, below)
- Box size: 4.9"L x 3.3"W x 0.6"H
- 11341: stores sixty 8-pin or thirty 16-pin DIPs
- 11375: Designed to store all types of components

| Part No. | Description                                     | 1      | 10     | 100    |
|----------|---|--------|--------|--------|
| 11341    | 30 compartments ⊕ ..                            | \$4.29 | \$3.95 | \$3.49 |
| 11375    | 3 compart./6 vertical & 6 horizontal dividers ⊕ | 4.29   | 3.95   | 3.65   |

## Bug Tray

- Fits in bug cage (P/N 11332, below)
- 10 compartments 3.2"L x 0.4"W x 0.4"H ea.
- Tray size: 4.8"L x 3.6"W x 0.5"H

| Part No. | Description           | 1      | 10     | 100    |
|----------|-----------------------|--------|--------|--------|
| 11800    | Divided bug tray ⊕ .. | \$3.19 | \$2.87 | \$2.58 |

## Bug Cage

- Holds bug boxes or trays
- Modular and interlocking
- Color: blue • Weight: 0.7 lbs.
- Case size: 5.0"L x 3.9"W x 5.1"H

| Part No. | Description   | 1      | 10     | 100    |
|----------|---------------|--------|--------|--------|
| 11332    | Bug cage ⊕ .. | \$7.49 | \$6.74 | \$6.07 |

## Component Cabinet



- Drawer can be divided into 3 sections (clear)
- Wall mountable cabinet (ABS black)
- Cabinet size: 6.0"D x 14.7"W x 7.4"H
- Weight: 2.8 lbs.
- 319601: 5.5"L x 2.7"W x 1.5"H
- 319611: 2.5"W x 1.2"H

Includes: 20 clear plastic drawers, 20 dividers and 30 adhesive I.D. labels

| Part No. | Description                | 1       | 10      | 50      |
|----------|----------------------------|---------|---------|---------|
| 319600   | Component cabinet          | \$15.95 | \$13.95 | \$12.49 |
| 319601   | Drawer for cabinet ⊕ ..... | .39     | .35     | .29     |
| 319611   | Divider for cabinet        | ..... * | .19     | .17     |

www.Jameco.com

Our enhanced website offers over 65,000 new products. Find products quickly and order them easily.

## Plastic Flip Top Boxes

- Clear plastic box with a clear plastic lid and removable dividers
- 100255: Size: 8.4"L x 4.5"W x 1.4"H
- 18 compartments (1.4" x 1.5" each)
- 148902: Size: 10.2"L x 4.7"W x 1.6"H
- 12 compartments (1.7" x 2.3" each)

| Part No. | Description           | 1      | 10     | 100    |
|----------|-----------------------|--------|--------|--------|
| 100255   | 18 compartments ⊕ ..  | \$2.25 | \$1.91 | \$1.43 |
| 148902   | 12 compartments ..... | 3.95   | 3.49   | 2.95   |

## Plastic Flip Top Case for SMDs

- 128 compartments • Color: gray
- 8 rows x 16 columns grid
- Flip top openings on each bin
- Padded cover locks bins closed
- Perfect match to store P/N 156882 SMD resistor assortment, pg 77
- Weight: 1.4 lbs. • Size: 11.0"L x 8.3"W x 1.7" Thick

| Part No. | Description       | 1       | 10      |
|----------|-------------------|---------|---------|
| 164267   | SMD flip top case | \$49.95 | \$44.99 |

## Stackable Drawers

- Case size: 4.5"L x 4.4"W x 2.3"H
- Drawer size: 4.4"L x 4.0"W x 0.9"H
- Color: blue/white

| Part No. | Description          | 1      | 10     | 100    |
|----------|----------------------|--------|--------|--------|
| 11906    | Case/drawers ⊕ ..... | \$1.85 | \$1.68 | \$1.53 |





## Enclosures

### A Series — with PCB Boss Mounts

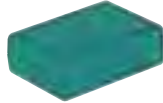
- 4-piece design
- Interchangeable end panel
- 4-insert areas for customized I-plates



| Part No. | Product No. | Color | Batt. Holder | Size (L"xW"xH")    | 1      | 10     | 50     |
|----------|-------------|-------|--------------|--------------------|--------|--------|--------|
| 373309   | A-20-BK     | Black | None         | 4.25 x 2.60 x 0.88 | \$4.85 | \$3.84 | \$3.39 |
| 373333   | A-21-BK     | Black | None         | 4.25 x 2.60 x 1.12 | 4.99   | 3.95   | 3.49   |
| 373368   | A-27-BK     | Black | None         | 5.31 x 3.35 x 1.50 | 7.35   | 5.80   | 5.11   |
| 373456   | A-42-BK     | Black | None         | 7.12 x 5.00 x 1.62 | 11.49  | 9.11   | 8.03   |
| 373608   | A-42-9V-BK  | Black | 1-9V         | 7.12 x 5.00 x 1.62 | 12.85  | 10.19  | 9.26   |

### C Series — with Pinch-Fit for PCBs

- Simple 2-piece design
- 2-insert areas for customized I-plates



| Part No. | Product No. | Color  | Size (L"xW"xH")    | 1      | 10     | 50     | 100    |
|----------|-------------|--------|--------------------|--------|--------|--------|--------|
| 675331   | C-4-BK      | Black  | 2.13 x 1.38 x 0.58 | \$2.29 | \$1.81 | \$1.61 | \$1.60 |
| 694541   | C-4-TR-GY   | Gray*  | 2.13 x 1.38 x 0.58 | 3.85   | 3.06   | 2.78   | 2.69   |
| 675358   | C-6-BK      | Black  | 2.26 x 1.61 x 0.75 | 2.29   | 1.81   | 1.61   | 1.60   |
| 694559   | C-6-TR-GR   | Green* | 2.26 x 1.61 x 0.75 | 3.85   | 3.06   | 2.78   | 2.69   |
| 675366   | C-8-BK      | Black  | 2.40 x 1.85 x 0.93 | 2.29   | 1.81   | 1.61   | 1.60   |
| 694567   | C-8-TR-RD   | Red*   | 2.40 x 1.85 x 0.93 | 3.85   | 3.06   | 2.78   | 2.69   |
| 675374   | C-10-BK     | Black  | 3.25 x 2.30 x 0.80 | 2.59   | 2.05   | 1.87   | 1.81   |
| 694575   | C-10-TR-BL  | Blue*  | 3.25 x 2.30 x 0.80 | 4.39   | 3.48   | 3.16   | 3.07   |
| 675382   | C-12-BK     | Black  | 3.75 x 2.40 x 1.00 | 3.55   | 2.77   | 2.15   | 1.97   |
| 694612   | C-28-BK     | Black  | 5.00 x 1.85 x 1.00 | 3.65   | 2.85   | 2.48   | 2.01   |

\* Translucent

### CH Series — Single Screw Assembled

- Simple 2-piece design
- Insert area for customized I-plate



| Part No. | Product No. | Color | Size (L"xW"xH")    | 1      | 10     | 50     | 100    |
|----------|-------------|-------|--------------------|--------|--------|--------|--------|
| 675391   | CH-4-BK     | Black | 2.27 x 1.52 x 0.59 | \$2.85 | \$2.21 | \$1.93 | \$1.60 |
| 675403   | CH-6-BK     | Black | 2.39 x 1.74 x 0.76 | 2.85   | 2.21   | 1.93   | 1.60   |
| 675411   | CH-8-BK     | Black | 2.58 x 2.02 x 0.93 | 2.85   | 2.21   | 1.93   | 1.60   |

### H Series — Handheld with Built-in Battery Holder

- Ergonomic handheld design
- 5-insert areas for customized I-plates



| Part No. | Product No.   | Color  | Batt. Holder | Size (L"xW"xH")    | 1      | 10     | 50     |
|----------|---------------|--------|--------------|--------------------|--------|--------|--------|
| 374395   | H-45-BK       | Black  | None         | 3.90 x 2.20 x 0.94 | \$5.95 | \$4.65 | \$4.51 |
| 374483   | H-45-AA-BK    | Black  | 2-AAA        | 3.90 x 2.20 x 0.94 | 6.69   | 5.26   | 4.95   |
| 374424   | H-65-BK       | Black  | None         | 4.94 x 2.75 x 0.94 | 6.19   | 5.03   | 4.55   |
| 694621   | H-65-TR-GY    | Gray*  | None         | 4.94 x 2.75 x 0.94 | 11.05  | 8.84   | 7.92   |
| 694639   | H-65-TR-RD    | Red*   | None         | 4.94 x 2.75 x 0.94 | 11.05  | 8.84   | 7.92   |
| 374512   | H-65-AA-BK    | Black  | 2-AA         | 4.94 x 2.75 x 0.94 | 6.69   | 5.26   | 5.05   |
| 374715   | H-65-AA-TR-BL | Blue*  | 2-AA         | 4.94 x 2.75 x 0.94 | 12.35  | 9.86   | 8.69   |
| 374723   | H-65-AA-TR-GR | Green* | 2-AA         | 4.94 x 2.75 x 0.94 | 11.59  | 9.62   | 8.69   |
| 374635   | H-65-9V-BK    | Black  | 1-9V         | 4.94 x 2.75 x 0.94 | 6.55   | 5.27   | 4.89   |
| 374758   | H-65-9V-TR-BL | Blue*  | 1-9V         | 4.94 x 2.75 x 0.94 | 11.15  | 8.99   | 8.55   |
| 374774   | H-65-9V-TR-RD | Red*   | 1-9V         | 4.94 x 2.75 x 0.94 | 12.05  | 9.70   | 8.55   |
| 675323   | H-67-BK       | Black  | None         | 4.94 x 2.75 x 1.28 | 6.35   | 5.11   | 4.62   |
| 374547   | H-67-AA-BK    | Black  | 2-AA         | 4.94 x 2.75 x 1.28 | 6.99   | 5.64   | 5.05   |
| 374942   | H-67-9V-BK    | Black  | 1-9V         | 4.94 x 2.75 x 1.28 | 6.69   | 5.46   | 4.99   |
| 374459   | H-75-BK       | Black  | None         | 7.19 x 3.65 x 1.26 | 7.55   | 5.93   | 5.59   |
| 374601   | H-75-4AA-BK   | Black  | 4-AA         | 7.20 x 3.65 x 1.20 | 10.29  | 8.32   | 7.43   |

\* Translucent

### M Series — Handheld with Built-in Battery Holder

- Streamlined handheld design
- 5-insert areas for customized I-plates



| Part No. | Product No. | Color  | Size (L"xW"xH")    | 1      | 10     | 50     | 100    |
|----------|-------------|--------|--------------------|--------|--------|--------|--------|
| 675420   | M-4-BK      | Black  | 2.80 x 2.20 x 0.70 | \$5.45 | \$4.29 | \$3.79 | \$3.78 |
| 694663   | M-4-TR-RD   | Red*   | 2.80 x 2.20 x 0.70 | 9.35   | 7.50   | 6.62   | 6.59   |
| 694671   | M-4-TR-BL   | Blue*  | 2.80 x 2.20 x 0.70 | 9.35   | 7.50   | 6.62   | 6.59   |
| 675438   | M-6-BK      | Black  | 4.15 x 2.40 x 0.85 | 6.55   | 5.30   | 4.71   | 4.70   |
| 694815   | M-6-TR-GY   | Gray*  | 4.15 x 2.40 x 0.85 | 11.79  | 9.41   | 8.29   | 8.28   |
| 694807   | M-6-TR-GR   | Green* | 4.15 x 2.40 x 0.85 | 11.79  | 9.41   | 8.29   | 8.28   |
| 675446   | M-8-BK      | Black  | 6.97 x 2.40 x 0.85 | 7.89   | 6.35   | 5.75   | 5.60   |

\* Translucent

### S Series — Two-piece Standard Enclosures

- 2-piece design
- 2-insert areas for customized I-plates

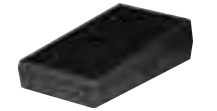


| Part No. | Product No. | Color | Batt. Holder | Size (L"xW"xH")    | 1      | 10     | 50     |
|----------|-------------|-------|--------------|--------------------|--------|--------|--------|
| 675454   | 110-I-BK    | Black | None         | 3.61 x 2.27 x 1.01 | \$3.05 | \$2.39 | \$2.13 |
| 675462   | 111-BK      | Black | None         | 3.61 x 2.27 x 1.51 | 3.55   | 2.77   | 2.46   |
| 675471   | 031-BK      | Black | None         | 4.38 x 3.25 x 0.91 | 4.15   | 3.26   | 2.96   |
| 675489   | 131-BK      | Black | None         | 4.38 x 3.25 x 1.51 | 4.35   | 3.42   | 3.15   |
| 675569   | 211-BK      | Black | 1-9V         | 4.10 x 2.60 x 1.51 | 3.55   | 3.36   | 3.02   |
| 675577   | 231-BK      | Black | 1-9V         | 4.38 x 3.25 x 1.51 | 5.25   | 4.17   | 3.69   |
| 675585   | 231-I-BK    | Black | 1-9V         | 4.38 x 3.25 x 1.51 | 5.25   | 4.17   | 3.69   |
| 675497   | 133-BK      | Black | None         | 4.38 x 3.25 x 2.51 | 5.09   | 4.01   | 3.65   |
| 675500   | 151-BK      | Black | None         | 5.63 x 3.25 x 1.51 | 5.19   | 4.12   | 3.75   |
| 675593   | 251-BK      | Black | 1-9V         | 5.63 x 3.25 x 1.51 | 7.19   | 5.63   | 4.55   |
| 675518   | 153-BK      | Black | None         | 5.63 x 3.25 x 2.51 | 6.65   | 5.22   | 4.18   |
| 675526   | 171-BK      | Black | None         | 6.88 x 4.88 x 1.51 | 7.55   | 5.98   | 5.43   |
| 675534   | 172-BK      | Black | None         | 6.88 x 4.88 x 2.01 | 7.19   | 5.71   | 5.19   |
| 675542   | 173-BK      | Black | None         | 6.88 x 4.88 x 2.51 | 8.49   | 6.73   | 6.12   |
| 675551   | 193-BK      | Black | None         | 9.50 x 6.34 x 2.51 | 11.95  | 9.48   | 8.36   |

† Insert on top is recessed 0.015" on all models designated with an "I"

### SL Series — Sloped Top Enclosures

- Slanted top
- 2-insert areas for customized I-plates



| Part No. | Product No. | Color | Size (L"xW"xH")    | 1      | 10     | 50     | 100    |
|----------|-------------|-------|--------------------|--------|--------|--------|--------|
| 694698   | 05-SW-BK    | Black | 5.63 x 3.25 x 0.91 | \$5.65 | \$4.70 | \$4.21 | \$3.59 |
| 675606   | 15-S-BK     | Black | 5.63 x 3.25 x 1.51 | 5.19   | 4.12   | 3.75   | 3.64   |
| 694680   | 27-S-BK     | Black | 6.88 x 4.88 x 2.49 | 8.65   | 6.85   | 6.23   | 6.03   |

### R Series — Waterproof Cases

- Lifetime guarantee
- Airtight and UV protected
- Waterproof to 30ft, dustproof, corrosion proof
- Features auto pressure purge valve, secure lock holes, nut & bolt security, and foam-filled



| Part No. | Product No. | Color | Size (L"xW"xH")    | 1       | 10      | 50      |
|----------|-------------|-------|--------------------|---------|---------|---------|
| 675614   | R-120F      | Black | 7.6 x 5.0 x 2.2    | \$16.25 | \$14.08 | \$12.76 |
| 675622   | R-300F      | Black | 9.59 x 7.42 x 3.98 | 26.39   | 22.73   | 22.23   |
| 675631   | R-520F      | Black | 12.8 x 9.0 x 6.0   | 49.75   | 44.54   | 42.31   |
| 675649   | R-720F      | Black | 18.3 x 13.2 x 6.72 | 74.09   | 63.84   | 63.29   |

### CA Series — Keychain Style w/ Battery Compartment

- Ergonomic design
- 0-4 button configuration
- Designed to hold a 20mm coin cell battery
- Assembles with two or three screws



| Part No. | Product No. | Buttons | Color | Size (L"xW"xH")    | 1      | 10     | 50     |
|----------|-------------|---------|-------|--------------------|--------|--------|--------|
| 694583   | CA-4, 2-BK  | 2       | Black | 2.48 x 1.73 x 0.60 | \$3.55 | \$2.83 | \$2.43 |
| 694591   | CA-4, 3-BK  | 3       | Black | 2.48 x 1.73 x 0.60 | 3.29   | 2.57   | 2.10   |
| 694604   | CA-4, 4-BK  | 4       | Black | 2.48 x 1.73 x 0.60 | 3.29   | 2.57   | 2.10   |

Please Note: Images used are representative. Color and shapes vary by model.

## Lowest Price Guarantee

Have you found a product at a lower print-advertised price? We'll beat that price by 10%, right down to our cost!

RoHS compliant product

This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version.

Details on page 1.

## BELLIN DYNAMIC SYSTEMS, INC.

### Surface Mount Proto Boards

Prototyping SMT circuit boards has been tedious and time-consuming because surface mount devices are so small. Now there is an easy, cost-effective and versatile Snap-Apart™ solution from Bellin Dynamic Systems.

- Quality silk-screened and solder-masked boards
- V-groove scoring between elements for smooth straight edges
- Compatible w/ .100" single or dual row male headers (see pg 126)
- Size: 7.6"L x 5.0"W
- Board thickness: 0.031"
- See our website ([www.Jameco.com](http://www.Jameco.com)) for additional specifications



**Quantity SAVE**

Application example using 215503



Portion of 227299

#### Small SMT

| Part No. | Prod. No. | Board Description                                       | 1       | 10      |
|----------|-----------|---|---------|---------|
| 215491   | B502      | 160 SMT pattern, SOT/SOIC/TSOP/MSOP/DPAK & more         | \$45.95 | \$41.35 |
| 227344   | B513      | 300 SMT pattern, SC90, SOT23-6, 323-6, TSOP, MSOP8, 10+ | 45.95   | 41.35   |

#### SOIC

|        |      |  |         |         |
|--------|------|--|---------|---------|
| 215520 | B505 | 60 SOIC SMT pattern, SOIC 8, 14, 16, 24, 32, 40 & more     | \$45.95 | \$41.95 |
| 227310 | B510 | 140 SMT pattern, SOIC 8 to DIP .300" width                 | 45.95   | 41.35   |
| 227328 | B511 | 63 SMT pattern, SOIC nrv/wd 8, 14, 16, 18, 20 to DIP .300" | 45.95   | 41.35   |
| 227352 | B514 | 72 SMT pattern, SOIC narrow 8, 14, 16, 18, 20 to DIP .300" | 45.95   | 41.35   |
| 227361 | B515 | 30 SMT pattern, SOIC 24, 28, 32 to DIP .600" width         | 45.95   | 34.46   |

#### Fine Pitch Dual Row

|        |      |   |         |         |
|--------|------|---|---------|---------|
| 215503 | B503 | 34 SMT pattern, SOIC/QSOP/TSOP/MSOP/TSSOP & more            | \$45.95 | \$41.35 |
| 227281 | B507 | 40 SMT pattern, SSOP/TSSOP 16, 20, 32, 40 & more            | 45.95   | 41.35   |
| 323889 | B516 | 54 SMT pattern, 0.65mm TSSOP 14/16/20/28 to DIP 0.300/0.600 | 62.49   | 56.25   |
| 323900 | B517 | 18 SMT pattern, 0.65/0.5/0.4mm TSSOP-48 to DIP 0.600        | 45.95   | 43.65   |
| 681141 | B536 | 4 SMT pattern, 0.5mm TSSOP 14/16/20/28                      | 45.95   | 41.45   |

#### Quad

|        |      |  |         |         |
|--------|------|--|---------|---------|
| 215511 | B504 | 25 SMT pattern, QFP32, 44, 48, 52, 54, 64, 70, 80, 100 PLCC18, 20, 28, 32, 44                              | \$45.95 | \$41.35 |
| 323918 | B518 | 2 SMT 0.65mm or 0.8mm pitch, universal QFT adapter for QFP32/40/48/56/64 (by 8-pin increments to 256 pins) | 59.95   | 44.96   |
| 323926 | B519 | 2 SMT 0.4mm or 0.5mm pitch, universal QFT adapter for QFP32/40/48/56/64 (by 8-pin increments to 256 pins)  | 59.95   | 53.95   |
| 336479 | B530 | 8 SMT, 0.65/0.80mm QFP/MLF 8 - 80 pins (even # of pins/side)   | 43.65   | 41.45   |
| 336487 | B531 | 8 SMT, 0.65/0.80mm QFP/MLF 4 - 76 pins (odd # of pins/side)  | 43.65   | 32.75   |
| 336495 | B532 | 8 SMT, 0.40/0.50mm QFP/MLF 8 - 80 pins (even # of pins/side)   | 43.65   | 41.45   |
| 336508 | B533 | 8 SMT, 0.40/0.50mm QFP/MLF 4 - 76 pins (odd # of pins/side)  | 43.65   | 32.75   |
| 681150 | B535 | 8 SMT, 0.40/0.50/0.65/0.80mm QFP/TQFP/QFN/MLF/MLP 4/8/12/16/24/28/32 pins                                  | 45.95   | 41.45   |

#### PCB Connector (0.062" thick through-hole)


|        |      |  |         |         |
|--------|------|--|---------|---------|
| 227272 | B506 | 45 SMT pattern, USB A, B/1394/RJ11, 12, 45/DB9 PCB conn. | \$45.95 | \$34.46 |
|--------|------|--|---------|---------|


#### PitchStick™

|        |      |  |         |         |
|--------|------|--|---------|---------|
| 227299 | B508 | 20 SMT pattern, 48 inline pads, metric/rare pitches    | \$45.95 | \$34.46 |
| 227301 | B509 | 20 SMT pattern, 48 inline pads, 50 & 25 mil pitches    | 45.95   | 34.46   |
| 681133 | B534 | 2 SMT pattern, 48 inline pads, 19.69/25.59 mil pitches | 45.95   | 41.45   |

#### Kits

| Part No. | Prod. No. | Description  | Price    |
|----------|-----------|--|----------|
| 681168   | KIT-100   | 1 each of B500, B502, B503, B504, B505, B507   | \$169.95 |
| 681176   | KIT-101   | 1 each of B500, B504, B513, B514, B516, B517   | 169.95   |
| 681184   | KIT-202   | 1 each of B504, B508, B510, B513, B514, B516, B517, B535, B536, B537 & 2 of B500                               | 349.95   |
| 681205   | KIT-302   | 1 each of B504, B505, B507, B508, B510, B513, B514, B515, B516, B517, B518, B519, B535, B536, B537 & 3 of B500 | 529.95   |

 RoHS compliant product

 This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)



### Surfboards®

Mini Breadboards for Surface Mount Devices.







207360




207394



207589

| Part No. | Product No.   |  | 1      | 10     |
|----------|---|--|--------|--------|
| 207360   | 9081 (For 8-pin SOIC)                                |  | \$1.35 | \$1.22 |
| 207378   | 9082 (For 8-pin SOIC)                                |  | 3.55   | 3.10   |
| 207386   | 9161 (For 14/16-pin SOIC; 0.1" pin spacing; 0.65"H)  |  | 1.75   | 1.50   |
| 207394   | 9163 (For 14/16-pin SOIC; 0.1" pin spacing; 0.65"H)  |  | 5.45   | 4.79   |

#### Application Specific Adapters

| Part No. | Product No. | Accepted Devices   | Pins | 1      | 10     |
|----------|-------------|--|------|--------|--------|
| 207589   | 33205       | SOT-23-5/SC59-5  | 5    | \$1.35 | \$1.18 |
| 207597   | 33206       | SOT-23-6/SOT-23-L/SC-59-6/TSOP-6  | 6    | 1.95   | 1.69   |


### microEngineering Labs

#### LAB-X1 Experimenter's Module Board

It provides an assembled testbed containing most of the circuitry commonly used with PICmicro microcontrollers (MCUs). Many different projects may be created using the LAB-X1, including calculator, voltmeter, LCD backpack, tone dialer, and RC servo controller.

- 40-pin ZIF socket for PICmicro MCU (not included, recommend PIC16F877-20/P (P/N 176882, pg 4)
- Reset button • 16 switch keypad
- 3 potentiometers • LED bargraph
- 2 lines x 20 characters LCD module • Speaker • 2 RC servo connectors
- RS232 interface • Size: 5.5" x 5.6" • One-year warranty
- Socket for I2C & SPI serial EEPROM, RS485 interface, Microwire serial EEPROM and real time clock/serial analog to digital converter (devices not included)
- EPIC in-circuit programming connector • Prototyping area for additional circuit

Requires: AC adapter (below)

| Part No. | Description   | 1        | 10       |
|----------|---|----------|----------|
| 169113   | LAB-X1 Experimenter Board   | \$199.95 | \$189.95 |
| 176882   | PIC16F877-20/P microcontroller (pg 4)  | 9.29     | 8.05     |
| 127976   | AC adapter (details on pg 241)  | 5.25     | 4.59     |
| 1581222  | LAB-X1 Tutorial & Resource Book   | 49.95    | 48.95    |

### microEngineering Labs



#### EPIC Plus PICmicro Programmer

The EPIC Plus Programmer quickly and easily programs the PIC12Cxxx, 12CExxx, 16C505, 16C55x, 6xx, 7xx, 84, 9xx, 16CE62x, 16F62X, 7x, 8x, 87x, 14C000, 17C7xx, 18Cxxx microcontrollers from Microchip. The basic programmer includes an 18-pin socket for programming 8, 14 and 18-pin PICmicro MCUs. Devices available separately on page 4.

- Simple installation with parallel port (printer) interface
- Command line operation for automated, non-interactive programming
- PICmicro Assembler software included


Requires: Two 9V batteries or AC adapter (below)





 Blue Part No. = Limited Quantity Available

| Part No. | Description   | 1       | 10      |
|----------|---|---------|---------|
| 132679   | EPIC Plus PICmicro programmer   | \$59.95 | \$53.95 |
| 136397   | 8/18/20-pin ZIF adapter   | 34.95   | 31.95   |
| 132610   | 40/28-pin ZIF adapter   | 34.95   | 31.95   |
| 162317   | AC wall adapter (16VDC/500mA, details on page 242)  | 8.75    | 7.65    |
| 67256    | 6' DB25 cable (details on page 107)   | 6.45    | 5.79    |

#### PLCC Prototype Adapters

- PCB construction
- Tin-plated PLCC connector • Gold-plated round pins
- PLCC socket slotted for PLCC chip remover
- PLCC socket identifies pin 1 and orientation key
- Silkscreen numbers identify pin numbers in groups of 5 and 10

 Blue Part No. = Limited Quantity Available

| Part No. | Pins   | Size (L x W) | 1       | 10      | 100    |
|----------|--|--------------|---------|---------|--------|
| 73541    | 44    | 2.3" x 1.6"  | \$11.95 | \$10.79 | \$9.69 |
| 73551    | 68    | 3.4" x 1.6"  | 15.95   | 13.56   | 10.17  |
| 73568    | 84   | 4.3" x 1.9"  | 23.95   | 21.59   | 19.45  |



73551



## ISA Printed Circuit Prototyping Board

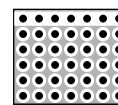
Printed circuit prototyping boards for virtually any application including those requiring high component densities and solder or wire wrap connections. All boards are manufactured to precise standards and specifications. All bus and circuit patterns are solder-coated for user convenience.

- Edge contacts: gold

| Part No. | Cross Ref. No. | Description     | Size (Inches)<br>W x L | Terminals (pg 306) |     |      | I/O Connector<br>(not included) | Hole Pads      | # Holes<br>x Dia. | Power/<br>Ground Bus | # Mounting<br>Holes x Dia. | Wt.<br>(lbs.) | Pricing |         |         |
|----------|----------------|-----------------|------------------------|--------------------|-----|------|---------------------------------|----------------|-------------------|----------------------|----------------------------|---------------|---------|---------|---------|
|          |                |                 |                        | T44                | T49 | T421 |                                 |                |                   |                      |                            |               | 1       | 10      | 25      |
| 28206    | PCB4           | PC/XT/AT 16-bit | 4.25 x 13.13           | yes                | yes | yes  | D-sub 9, 15 & 25                | Plated through | 4890 x .042"      | 2                    | 4" x .120"                 | 0.23          | \$26.95 | \$24.25 | \$21.85 |



Circuit Pattern



Power/Ground Perimeter  
Bus with Pad Per Hole



## microEngineering Labs "PICProto" Prototyping Boards

- High quality blank prototyping boards for PICmicro microcontrollers
- Holds microcontroller, 5V regulator, oscillator, capacitors and DB9-25 connector
- Double-sided board with plated-through holes
- Solder mask on both sides makes soldering easy
- Large prototyping area
- Silkscreen legend

**Includes:** Documentation sheet with schematic, suggested parts and placement



132644



176891



132636



132652

**PICProto 18, 18L:** For all 18-pin PICs including PIC16C52, 54, 56, 58, 55A, 55B, 61, 620, 621, 622, 71, 710, 711, 712, 715, 716, 84, 16CE623, 624, 625, 16F627, 628, 83, and 84

| Part No. | Description  | Size (L" x W") | 1      | 10     |
|----------|--------------|----------------|--------|--------|
| 132644   | PICProto 18  | 3.0 x 1.5      | \$9.95 | \$8.95 |
| 176891   | PICProto 18L | 3.6 x 4.1      | 19.95  | 17.95  |

**PICProto 3:** For the 28-pin PIC16C62, 63, 642, 66, 72, 76, 773, 16F73, 76, 870, 872, 873, 876, 18C242, and 252

|        |            |           |         |         |
|--------|------------|-----------|---------|---------|
| 132636 | PICProto 3 | 3.0 x 3.0 | \$14.95 | \$13.49 |
|--------|------------|-----------|---------|---------|

**PICProto 64:** For the 40-pin PIC16C64, 65, 662, 67, 74, 77, 774, 16F74, 77, 871, 874, 18C422, and 452

|        |             |           |         |         |
|--------|-------------|-----------|---------|---------|
| 132652 | PICProto 64 | 4.0 x 3.0 | \$16.95 | \$14.95 |
|--------|-------------|-----------|---------|---------|

**See page 329  
for our *NEW*  
selection of  
Prototyping Boards.**

## USB Interface Universal Programmer

- 12,000+ device types supported
- Programs EPROM, EEPROM, Serial PROM, Flash, PLD/CPLD/FPGA, and MPU/MCU
- High speed USB port is provided to connect to the majority of notebook or desktop PCs running Windows® 95/98/2000/XP
- On-board 40-pin socket for programming 8-pin to 40-pin IC's
- Utilizes flexible pin drivers to get accurate waveforms
- High programming speed plus over-current protection, reverse insertion detection, self diagnostics, etc.
- Menu-driven software
- Single chip controller, "Yes" key for hit operation, Good and Busy LED indicators
- Load file, read master, program, verify, auto, ID check, check sum, blank check, erase, secure, protect/unprotect, edit, function configuration, and self-test functions
- Power requirements: 100 - 240VAC @ 50-60Hz • Size: 9.8"W x 8.7"L x 2.0"H

**Includes:** USB cable (USB A - USB B), power cord, users manual & CD-ROM software  
**System Requirements:** Intel Pentium® or compatible processor w/ 32MB of RAM, USB port, 20MB disk space, Windows® 98/ME/2000/XP/2003, CD-ROM drive



HI-LO SYSTEMS

| Part No. | Product No. | 1        | 5        |
|----------|-------------|----------|----------|
| 667403   | ALL-11A     | \$899.95 | \$854.95 |

## PICBasic and PICBasic Pro Compiler

- Compatible with most PICmicro MCU programmers including EPIC plus
- Use in DOS or Windows® (includes Windows® editor/DE software)
- I2C instructions to access external serial EEPROMs
- In-line assembler and call support

### 132661: PICBasic Compiler

- Expanded BASIC Stamp I compatible instruction set
- Serial speeds to 9600 baud
- May use up to 2k of code space
- Supports PC12C67x, PIC14Cxxx, PIC16C55x, 66x, 7xx, 84, 92x, and PIC16CF8xx microcontrollers
- PEEK and POKE instructions to access any register from BASIC



132661

### 150543: PICBasic Pro Compiler

- Direct and library routine access to any pin or register
- Automation page boundary handling past 2k
- Real If...Then...Else...Endif
- Interrupts in BASIC and assembler
- Built-in LCD support
- Supports 12C5xx, 12C67x, 12CE67x, 14C000, 16C5x, 16C55x, 6xx, 7xx, 84, 92x, 16CE62x, 16F62x, 7x, 8x, 87x, 17Cxxx, and 18Cxxx microcontrollers
- Bit, byte, word arrays
- Hierarchical expression handling
- BASIC Stamp I and II library
- MPLAB/MPASM/ICE compatibility

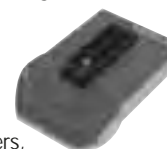
| Part No. | Description           | 1       | 10      |
|----------|-----------------------|---------|---------|
| 132661   | PICBasic compiler     | \$99.95 | \$89.95 |
| 150543   | PICBasic Pro compiler | 249.95  | 224.95  |

## Universal Programmer – Pocket Size & Battery Powered

### Parallel Port Interface

A unique ASIC pin driver, designed specifically for this latest generation programmer, enabling the first true universal input/output capability.

- Supports over 6400 devices: 8-bit and 16-bit EPROM, EEPROM, Flash EPROM, Serial EEPROMs, all Microcontrollers, GAL/PAL/CE without adapters
- Support for ultra-low voltage devices down to 1.3V
- High speed data transfer: 27C256 read/verify = 2 seconds; program = 8 seconds
- Three separately adjustable voltages for all 40-pins
- Fully compatible with Windows® 95/98/ME/NT/2000/XP
- Integrated editor's many features allow user to edit device data, which can be loaded or saved in Intel HEX, Motorola S or binary format
- Operates on AC power adapter or 6 NiMH batteries
- Size: 4.5"L x 3.1"W x 1.3"H • Weight: 0.5 lbs.



GALEP-4

**Includes:** Printer port data cable, power adapter and CD-ROM

**System requirements:** PC with Pentium® CPU

| Part No. | Description | 1        | 5        |
|----------|-------------|----------|----------|
| 226309   | GALEP-4     | \$369.95 | \$351.49 |

## Flash Writer/Programmer with USB Interface

- Supports Flash EPROM, EPROM & EEPROM
- Type, read, load, edit, checksum, erase, blank check, program, verify, protect functions
- Programs 8-bit Flash serial ICs via USB cable on Windows® 9x/2000/XP
- High speed: only 22 seconds to blank check, program, and verify MXIC MX29F040
- File formats supported: binary and machine code, Intel HEX, Motorola HEX, Tektronix



**Includes:** USB cable, 12V @ 500mA adapter, CD-ROM software and manual

| Part No. | Description | 1        | 5        |
|----------|-------------|----------|----------|
| 225947   | Leaper 3D   | \$199.95 | \$179.95 |



## Universal EPROM/Flash Programmer w/ USB Interface

- Supports low voltage components up to 2.5V; user selectable verify Vcc with one or two-pass verify voltage
- High speed: 30 sec. to process 16Mbits memory
- Auto detect device pin insertion and contact check
- Select device brand & number by prompt and convenient cross search, Flash memory auto detection
- Supports EPROMs, EEPROMs, Flash EPROMs, Serial E/EPROMs, NV RAMs, Microcontrollers, DSPs and PLDs
- Supports file formats JEDEC, binary, Intel 80/86 HEX, Motorola HEX, Tektronic HEX



**Includes:** USB cable, 12V@1.5A power adapter and CD-ROM software

**System requirements:** Pentium® II or higher, 32MB RAM minimum, 30MB hard disk space, Windows® 98/ME/2000 operating system

| Part No. | Description | 1        | 5        |
|----------|-------------|----------|----------|
| 225939   | Leaper 48   | \$554.95 | \$531.19 |

## 512k E(E)PROM/Flash Programmer w/ USB Interface

Compact, portable, and lightweight stand-alone E(E)PROM Flash programmer. Also interfaces with your PC through the USB port.



- Programs EPROMs, EEPROMs, Flash EPROMs & more
- 2 sockets for master/slave operation
- Stand-alone mode uses two 9V batteries
- IC parameters are adjustable such as programming algorithm, Vpp voltage, and pulse width
- Supports file formats binary and machine code, Intel HEX, Motorola HEX
- Supports Windows® 95/98/NT/2000/ME/XP • Size: 6.3"L x 4.3"W x 1.8"H

**Includes:** USB cable, 12VDC @ 500mA power adapter and CD-ROM

| Part No. | Description | 1        | 5        |
|----------|-------------|----------|----------|
| 220636   | Leaper-3C   | \$275.95 | \$259.95 |

## XELTEK 3400+ Device, 40-Pin Programmer

- Supports 3400+ devices, including most E(E)PROM, Series E(E)PROM & Flash
- Programs GALs, PEELs, PALCE, Microcontrollers, PIC16Cxx/17Cxx, COP87xx, and PSD3XX
- Tests TTL/CMOS Test, Memory Test, Vector Test, Test Pattern Edit, Auto Identify TTL/CMOS Device
- Features a universal ZIF socket that accepts up to 40 pins
- High-speed programming, cost-effective hardware and flexible software
- Load and save file in binary, Intel (extended) Hex, Motorola S or Tektronix (extended) Hex format. Multiple load, format conversion, relocation etc.
- HEX-ASCII Edit, Fuse Map Edit, Checksum, Swap, Vector Table edit
- Supports Windows® 9x/NT/2000/XP • Printer Port Interface
- Size: 7.8"L x 5.5"W x 0.8"H • Weight: 4.0 lbs.



**Includes:** Power adapter, parallel cable, user's guide and CD-ROM software

| Part No. | Description                     | 1        | 5        |
|----------|---------------------------------|----------|----------|
| 231183   | SuperPro-Z universal programmer | \$244.95 | \$232.69 |

## XELTEK 30,000+ Device/48-Pin USB Stand-Alone Gang Programmer

- 4 high speed 48-pin DIP programming sockets with four 128MB flash cards
- Supports 30,000+ devices, and growing
- Operates in both PC and stand-alone mode for volume production
- Programs latest low voltage devices
- Asynchronous fast programming, each module is independent from one another
- ISP (in-system programmable) devices supported
- Programming starts automatically when a chip is inserted
- Supports EPROM, EEPROM, serial EPROM, paged EPROM, serial PROM, flash EPROM (NOR & NAND), NVRAM, SPLD, CPLD, EPLD, MCU, microcontroller, SRAM, and standard logic devices with voltages down to 1.5V
- Stand-alone interface: 16 characters x 4 lines backlit LCD, 6 standard hard-keys, 4 compact flash cards (removable which can support up to 256MB)
- Operating voltage: AC input of 90V to 250V@50/60 Hz, or 24V@5A power adapter
- Size: 21.3"L x 7.7"W x 2.3"H



**Includes:** 4 128MB CF cards, AC adapter, CD-ROM, USB cable and user's guide

| Part No. | Description               | Price      |
|----------|---------------------------|------------|
| 692490   | SUPERPRO 9000U programmer | \$3,295.00 |

## 13,000+ Device USB Only Programmer

### USB Interface

- Universal device (13000+) support includes the latest NAND Flash Memory, Standard Flash Memory, EPROM, EEPROM, Serial PROM, GAL, FPGA, and Microcontrollers
- On-board FPGAs for extremely fast communication
- Supports real low-voltage support: 5, 3.3, 2.7, and 1.8 volt for programming power
- Detects all pin locations for poor or damaged pin contacts
- External "Start" key allows customer to execute the optional auto program parameters without PC command.
- Current limiting protects hardware circuit from improperly inserted or defective chips and operation errors • External power supply, 110 or -240 VAC
- Support a high-speed USB2.0 port for PC interface
- Support a standard IEEE-1149.1 (JTAG) port



**Includes:** USB cable, wall adapter, program CD and manual

**System Requirements:** IBM PC 386,486, Pentium® or compatibles with USB port, Windows® 98/Me/2000/NT/XP, Hard drive, 512K RAM

| Part No. | Description | Socket     | 1        | 5        |
|----------|-------------|------------|----------|----------|
| 694866   | CHIPMAX 2   | 48-pin ZIF | \$544.95 | \$517.75 |

### Parallel Port Interface

- 5000+ device types supported including(E)EPROM, PROM, Serial PROM, PALCE, GAL, Flash memory, microcontrollers, ATF

**Includes:** Parallel cable, wall adapter, diskette & manual

**System Requirements:** IBM PC, XT, AT, 386, 486, Pentium® or compatibles, DOS 2.11 or greater, Windows® 95/98/2000/NT/XP; hard disk, 512k RAM & parallel port

| Part No. | Description | Socket     | 1        | 5        |
|----------|-------------|------------|----------|----------|
| 207731   | CHIPMAX     | 40-pin ZIF | \$349.95 | \$332.95 |

## XELTEK 19,000+ Device 48-Pin USB Programmer

- High speed programming, 32Mb flash in 13.5 seconds (program + verify)
- ISP (in-system programmable) devices supported
- Supports EPROM, paged EPROM, parallel & serial EEPROM, FPGA configuration serial PROM, FLASH memory (NOR & NAND), NVRAM, SPLD, CPLD, EPLD, microcontroller, MCU, standard logic
- Standard 48-pin universal drivers and adapter
- Advanced hardware features minimized bounce noise
- Pin continuity & wrong chip insertion check prevents chip from accidental damage
- Over current and over voltage for programmer hardware
- Software supports Windows® 98/ME/NT/2000/XP
- 692457: supports 19,000+ devices from 132+ IC manufacturers
- 692449: supports 27,000+ devices from 146+ IC manufacturers



**Includes:** Power adapter, user's guide, program CD, and USB cable

| Part No. | Description              | Price    |
|----------|--------------------------|----------|
| 692457   | SUPERPRO 280U programmer | \$524.95 |
| 692449   | SUPERPRO 580U programmer | \$659.95 |



## 35,000+ Device 48-Pin USB/Stand-Alone Programmer

- Fastest low-cost programmer in the market; programs high-density Flash memory at near theoretical minimum programming time: (Intel 28F320W18 – 1.8 volts 32Mbit at 18 sec.; 13 sec. for programming & 5 sec. for verifying)
- Currently 35,000+ devices supported from 140+ manufacturers including memory, MCU, and PLD
- Supports: EPROM, Paged EPROM, Parallel/Serial EEPROM, FPGA Configuration Serial PROM, Flash Memory (NOR & NAND), BPROM, NOVRAM, SPLD, CPLD, EPLD, Firmware HUB, Microcontroller, MCU, Standard Logic
- Reliable programming of low voltage devices down to 1.5 volts
- Over-current/over-voltage protection for safety of the chip & programmer hardware
- Microsoft® Windows® 9x/NT/2000/XP compatible
- Size: 9.4"L x 5.9"W x 2.0"H • Weight: 5.0 lbs.



**Includes:** 12VDC @ 2.5A AC adapter, program CD, USB cable and user's guide

| Part No. | Description                             | 1        | 5        |
|----------|---|----------|----------|
| 231221   | SuperPro-3000U USB universal programmer | \$989.95 | \$940.45 |
| 231255   | 32-pin PLCC adapter                     | \$94.95  | \$90.25  |

## High-Speed Universal Device Programmer/Tester

### Parallel Port Interface

- Programs Flash memory, PROM, EPROM/EEPROM, Serial (E)EPROM, Bipolar PROM, PAL, PALCE, GAL, NVRAM, PEEL, EPLD, SPLD, CPLD, PIC & Microcontrollers
- 8000+ device types supported
- Hardware diagnostic program examines all 48-pin drivers
- On-board FPGA for speed: 4X faster than offshore brands
- Tests TTL, CMOS, DRAM and Static RAM ICs
- Current limiting protects hardware circuits from improperly inserted or defective chips
- Supports POF and JEDEC formats
- High-speed device function tests and user creatable test library
- Read, blank check, program, verify, checksum, data compare, security, auto (erase, blank check, program, verify), and option bit program function
- Built-in editor for both buffer date and test vectors • CE/CUL/CSA quality certified

**Includes:** Parallel cable, installation diskette, power cord and manual

**System Requirements:** IBM PC, XT, AT, 386, 486, Pentium®, hard drive, 512k RAM, Windows® 95/98/2000/NT, and parallel port

| Part No. | Description | Socket               | 1        | 5        |
|----------|-------------|----------------------|----------|----------|
| 207765   | TOPMAX      | 48-pin universal ZIF | \$875.95 | \$681.86 |

Our goal is to provide you with more of what you want. Let us know how we can better serve your electronics needs. Please send your requests to [NewProducts@Jameco.com](mailto:NewProducts@Jameco.com).



## HI-LO SYSTEMS

## EPROM Eraser

- Erases all UV erasable EPROMs (32-pin)
- Upper & lower erasing chambers hold a total of 16 EPROMs
- One-year warranty
- Conductive foam liner eliminates static build-up
- Size: 8.5"L x 2.8"W x 2.8"H • Weight: 1.6 lbs.

**Includes:** AC adapter – 9VDC @ 600mA and a timer which turns eraser off at the end of the selected time period – 10 to 60 minutes

| Part No. | Description  | 1        | 5        |
|----------|--------------|----------|----------|
| 121267   | EPROM eraser | \$154.99 | \$149.99 |



## EPROM Eraser and Accessories

- Erases 1 chip in 15 min. or 8 chips in 21 min.
- Conductive foam liner eliminates static build-up
- Maintains constant exposure distance of 1"
- Built-in safety lock to prevent UV exposure
- Complete with holding tray for 8 chips
- UV intensity: 6.8mW/cm²

- Weight: 2.3 lbs.
- Size: 9.0"L x 3.7"W x 2.6"H

| Part No. | Description              | 1        | 5        |
|----------|--------------------------|----------|----------|
| 15712    | 8-chip eraser            | \$106.85 | \$101.49 |
| 34382    | Lamp for 15712           | 39.95    | 29.95    |
| 13864    | Foam (12" x 24" x 0.25") | 9.29     | 8.35     |



## Solderless Breadboards

The screen-printed color coordinates are suitable for many types of digital and analog prototyping and circuit design. Larger models feature a heavy-duty aluminum backing with binding posts. Use Jameco's AC/DC breadboard power supply, P/N 77682 (pg 313).

- Accepts most electronic components, including integrated circuits and transistors for digital and/or analog circuitry • 0.1" hole spacing
- Pins are identified by numbered rows and columns
- Ideal for high frequency and low noise circuits
- One-year warranty \* WBU5 and JE series do not interconnect

**Attention Educators! Buy jumper wire (pg 313) in bulk and SAVE!** (see Hook-up Wire on page 103)

### WBU5 Series Key Features:

- Horizontal assembly corresponds to the operation flow design of the PC boards for handy operation
- Round hole design makes the electric connection better
- Formed with V-shaped cross-sectional groove, which allows DIP IC pins to be inserted across two parts and to increase the rate of utilization due to small pitch
- Dovetail protrusions and recesses designed to connect two adjacent parts tightly together

### JE Series Key Features:

- Use to breadboard and debug circuit designs
- Low static, plastic body – CMOS safe
- Nickel-plated clips designed to withstand up to 5,000 insertion cycles
- Breadboard strips connect together to form larger working areas
- Components are easily interconnected using 20-28 AWG wire (P/N 19290 & 20080, pg 313)
- Some models feature heavy-duty aluminum backings (JE24, JE27, WBU504)



20758



20774



20791



20811



20601

94457

20670

20723



136901



421315

| Part No. | Product No. | Terminal Strips | Bus Strips | Contact Points | Binding Posts | Breadboard Size L" x W" | Baseplate Size L" x W" | Weight (lbs.) | Pricing |        |        |        |
|----------|-------------|-----------------|------------|----------------|---------------|-------------------------|------------------------|---------------|---------|--------|--------|--------|
|          |             |                 |            |                |               |                         |                        |               | 1       | 10     | 50     | 100    |
| 94457    | JE19        | 0               | 1          | 100            | 0             | 6.5 x 0.4               | —                      | 0.04          | \$2.65  | \$2.39 | \$2.15 | \$1.95 |
| 20601    | JE21        | 1               | 2          | 400            | 0             | 3.3 x 2.1               | —                      | 0.13          | 5.25    | 4.73   | 4.25   | 3.83   |
| 20670    | JE22        | 1               | 0          | 630            | 0             | 6.5 x 1.4               | —                      | 0.20          | 5.49    | 4.95   | 4.49   | 3.95   |
| 194299   | JE37        | 1               | 2          | 640            | 0             | 6.9 x 2.4               | —                      | 0.25          | 9.95    | 8.96   | 7.16   | 5.37   |
| 20723    | JE23        | 1               | 2          | 830            | 0             | 6.5 x 4.0               | 6.5 x 2.1              | 0.30          | 9.39    | 8.45   | 7.61   | 6.85   |
| 194271   | JE34        | 2               | 3          | 1,560          | 3             | 6.5 x 4.0               | 8.5 x 4.7              | 0.73          | 15.95   | 14.85  | 14.11  | 13.40  |
| 20758    | JE24        | 2               | 1          | 1,360          | 2             | 6.5 x 3.1               | 8.5 x 4.0              | 0.60          | 13.65   | 12.28  | 11.06  | 9.95   |
| 136901   | WBU504      | 2               | 3          | 1,855          | 4             | 5.5 x 5.5               | 7.4 x 6.3              | 0.90          | 19.55   | 17.85  | 16.15  | 14.45  |
| 20774    | JE25        | 2               | 4          | 1,660          | 3             | 6.5 x 4.3               | 8.5 x 5.1              | 0.80          | 19.95   | 17.95  | 16.16  | 14.54  |
| 20791    | JE26        | 3               | 5          | 2,390          | 4             | 6.9 x 5.8               | 9.1 x 6.9              | 1.10          | 27.29   | 24.56  | 22.10  | 19.89  |
| 20811    | JE27        | 4               | 7          | 3,220          | 4             | 7.3 x 7.5               | 9.5 x 8.3              | 1.40          | 33.59   | 30.23  | 27.21  | 24.49  |

## Great Savings on Breadboard Test Leads

| Part No. | Description   | 1       | 10      | 25      |
|----------|---|---------|---------|---------|
| 421315   | Breadboard pin to breadboard pin test leads (20 pk), 4 each color-coded (red, yellow, blue, black, white), 24 AWG wire, 5.9"L wire length (150mm) | \$12.95 | \$11.69 | \$10.49 |

Blue Part No. = Limited Quantity Available

RoHS compliant product This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. Details on page 1.



## Wire Jumper Kit (350 pcs.)



- 25 each 0.1" to 5.0" lengths (14 sizes)
- 350 assorted lengths in 13 colors
- Pre-stripped/preformed 22 AWG solid wire jumpers



19290

**19290: 350-piece wire jumper kit**  
 • Handy, durable, clear plastic case

**20080: 350-piece refill for 19290**  
 • Case not included

| Part No. | Description  | 1       | 10      | 50      | 100     |
|----------|--|---------|---------|---------|---------|
| 19290    | Wire jumper kit   | \$15.95 | \$14.39 | \$12.95 | \$11.65 |
| 20080    | Refill for 19290  | 10.99   | 9.89    | 8.90    | 8.01    |




## Reinforced Jumper Wires

- 24 AWG-300 volts
- Reinforced pin ends for durability
- 10 pack assortment: 2 each yellow, white, red, black & blue



126342

 Blue Part No. = Limited Quantity Available

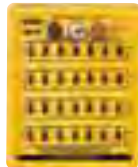
| Part No. | Cross Ref. No.  | Length (mm/inch) | 1      | 10     | 100    |
|----------|---|------------------|--------|--------|--------|
| 126359   | JW50   | 50/1.97          | \$3.95 | \$3.49 | \$2.95 |
| 126342   | JW100  | 100/3.94         | 4.95   | 4.49   | 4.05   |
| 126324   | JW200  | 200/7.87         | 5.19   | 4.69   | 4.25   |



## Resistance & Capacitance Decade Substitution Boxes

Wide-range decade substitution boxes for product design or calibration checks.

- Light durable construction
- Case may be grounded separately
- Three binding posts permit isolated substitutions
- Size: 4.7"W x 5.7"H x 1.4"D
- Weight: 0.7 lbs.



211668

**211668:**

- 1% resistance substitution from 1Ω to 11.111110MΩ
- 7 decade ranges of resistance
- Values can be changed in 1Ω increments



211676

- 5 decade ranges of capacitance
- 5% capacitance substitution from 100pF to 11,111μF

| Part No. | Description | 1       | 10      |
|----------|-------------|---------|---------|
| 211668   | Resistance  | \$98.95 | \$93.95 |
| 211676   | Capacitance | 128.95  | 122.45  |


## Fabricating Printed Circuit Boards

**Newnes Publishing** Designing and fabricating a single-printed circuit board for a design prototype or producing boards for a limited number of devices can be a major headache for electronics engineers and hobbyists. In this hands-on guide, the author describes the complete process of taking a schematic diagram and using it to produce a printed circuit board. (236 pages, 2002)



- Size: 7.0" x 9.3"

 Blue Part No. = Limited Quantity Available

| Part No. | Description   | Price   |
|----------|---|---------|
| 667391   | Printed Circuit Boards Book  | \$27.49 |

## Digital/Analog Design Labs

- Two 7-segment displays (digit height: 0.3")
- One-year warranty

### Solderless Breadboard

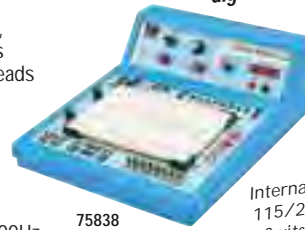
- Interconnected nickel-plated tie points, fitting all DIP sizes and all components with AWG #22-30 (0.3-0.8mm) solid leads

### DC Power Supplies

- DC supplies equipped with short circuit protection
- Variable DC power: 0 to +15V & 0 to -15V @ 0.5A

### Function Generator (5 ranges)

- Frequency ranges: 1Hz-10Hz, 10Hz-100Hz, 100Hz-1kHz, 1kHz-10kHz, 10kHz-100kHz
- Sine wave output: 0-8 Vp-p variable • Triangle wave output: 6Vp-p fixed • Square wave output: ±5V fixed



75838


Our most popular digital lab!

International 115/220VAC Switchable



201890

| Part No. | Tie Points | Fixed Power Supply | Pulse Generator        | Frequency Counter | Multimeter                          | Includes   |
|----------|------------|--------------------|------------------------|-------------------|-------------------------------------|--|
| 75838    | 1580       | +5VDC @ 1.0A       | No                     | No                | DCV (Digital)                       | Power cord, manual   |
| 201890   | 2960       | +5VDC @ 0.5A       | 1Hz to 1MHz switchable | Yes               | ACV, DCV, DCmA, resistance (analog) | Power cord, enclosed case, test lead, jumper wire kit, DB25 serial adapter, manual |

 Blue Part No. = Limited Quantity Available

| Part No. | Description   | Size (W" x D" x H")            | Wt. (lbs.) | 1        | 10       | 25       |
|----------|---|--------------------------------|------------|----------|----------|----------|
| 75838    | Digital lab  | 10.6 x 13.3 x 5.0              | 8.1        | \$276.95 | \$249.95 | \$226.95 |
| 201890   | Digital/analog lab  | 13.9 x 12.8 x 4.9 (back panel) | 11.8       | 429.95   | 365.46   | 305.56   |

## Digital/Analog Design Lab

### Solderless Breadboard

- 2712 interconnected nickel-plated tie points, fitting all DIP sizes and all components with AWG #22-30 (0.3-0.8mm) solid leads

### DC Power Supplies


- Variable DC output: 0 to +15V & 0 to -15V @ 500mA
- Fixed DC output: +5VDC @ 1A; -5VDC @ 300mA
- Input power: 120/220VAC @ 50-60Hz (switchable)

- Frequency ranges: 1Hz-10Hz, 10Hz-100Hz, 100Hz-1kHz, 1kHz-10kHz, 10kHz-100kHz
- Sine wave output: 0-8 Vpp variable • Triangle wave output: 0-6 Vpp variable • Square wave output: 0-8 Vpp variable

### Other features:

- 2 variable resistors: VR1=1kΩ, VR2=100kΩ
- 8 data switches
- 2.5" dia. 8Ω, 25W speaker
- 2 pulse switches (2 sets of outputs: A, A, B, B)
- 2 banana sockets, 2 BNC jacks
- One-year warranty
- Two 7-segment LED displays (digit height: 0.3")
- 8 red LEDs with separate input terminals

**Includes:** Power cord and manual

| Part No. | Description  | Size (W" x D" x H") | Wt. (lbs.) | 1        | 10       | 25       |
|----------|--|---------------------|------------|----------|----------|----------|
| 136266   | Digital/analog lab   | 12.8 x 9.8 x 3.7    | 8.5        | \$399.95 | \$379.95 | \$341.99 |
| 319214   | Replacement breadboard  | 6.7 x 6.5 x 0.4     | 0.5        | 24.45    | 22.28    | 21.16    |

## Powered Project Boards

- Solderless breadboard with 2420 tie points
- Power switch with light
- Outputs are short-circuit protected
- Weight: 6.8 lbs.

**Includes:** Power cord

**136258:** fixed power:

- +5V @ 1A; variable power: 0 to ±15VDC @ 500mA
- Back panel has ground terminal
- Edge plate for non-DIP size components
- Input power: 120/220VAC @ 50-60Hz (switchable)
- Replacement fuse: P/N 103907, pg 93
- Breadboard size: 7.4"L x 6.8"W
- Enclosure size: 9.8"L x 8.0"W x 2.6"H
- One-year warranty



136258

NEW

**1537264:** fixed power: +5V @ 1A; variable power:

- 0 to ±16VDC @ 300mA • Fuse protection
- Front panel has color coded terminals for DC output power supply, adjustable knobs & ground terminal
- Input voltage: 110/220VAC @ 50-60Hz switchable
- Breadboard size: 5.8"W x 6.5"L
- Enclosure size: 10.0"L x 7.8"W x 2.4"D

| Part No. | Description             | 1       | 10      | 25      |
|----------|-------------------------|---------|---------|---------|
| 136258   | Powered breadboard ..   | \$99.95 | \$94.44 | \$92.67 |
| 1537264  | Powered breadboard .... | 84.05   | 75.00   | 64.00   |

## AC/DC Power Supply

*Ideal for Breadboards on previous page*



International 120/220VAC Switchable

**Output Specifications:**

- +5VDC @ 1A;
- -5V @ 300mA fixed;
- 0 to +15VDC @ 500mA variable;
- 0 to -15VDC @ 300mA variable;
- 12-6-0-6-12 tapped VAC, 300mA fixed

With built-in short-proof regulated power supplies.

- Input power: 120/220VAC @ 50-60Hz (switchable)
- Indicator lamps and power fuses
- Just plug in and start to use
- Compact & lightweight
- For both digital and analog circuits
- Compatible with test leads P/N 77841, pg 285
- Size: 7.4"W x 5.5"D x 2.6"H • Color: beige
- Weight: 5.5 lbs. • One-year warranty

| Part No. | Description  | 1        | 10       | 25      |
|----------|--|----------|----------|---------|
| 77682    | Power supply  | \$119.95 | \$109.95 | \$99.95 |

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 322.



## Robotic Controller Kits

### Board of Education Full Kit

The Board of Education Full Kit is a concise package of all the hardware you need to begin building projects with the BASIC Stamp microcontroller. Everything you need is included except for a power supply, components and parts to build projects. So if you plan to purchase the Stamps in Class parts and kit selections or if you have a workshop full of LEDs, resistors, capacitors, sensors and more then this is the right kit for you.

- Mechanically interlocked power supply to prevent dual connection of wall pack and 9V battery
- DB9 connector for BS-2 programming and serial communication during runtime
- Female 10-pin dual row connector for optional AppMods
- PO – P15 I/O pins

**Includes:** Board of Education carrier board, BS-2 module, pluggable wires, serial cable and CD-ROM

| Part No. | Product No. | 1        | 10      |
|----------|-------------|----------|---------|
| 1536907  | 28103       | \$118.95 | \$96.99 |

### Boe-Bot Full Kits

Now with Robotics text v2.0! The new text includes 41 activities for the Boe-Bot and PBASIC 2.5 source code support. The Boe-Bot's flexibility stems from the fact that it's a rolling Board of Education. The Board of Education and Basic Stamp may be removed to be used as your platform for the other Stamps in Class curriculum. The robot may be programmed to follow a line, solve a maze, follow light, or communicate with another robot. Requires 4AA batteries (not included).

| Part No. | Product No.    | 1        | 10       |
|----------|----------------|----------|----------|
| 282933   | 28132 (serial) | \$148.45 | \$147.09 |
| 387997   | 28832 (USB)    | 148.45   | 147.09   |

### Microcontroller Application Cookbook Vol. 1 & 2

**Vol. 1** is a wide-ranging collection of 113 interface circuits designed around the BASIC Stamp 2. For somebody getting started with microcontrollers. Discusses timing diagrams, interfacing, A/D conversion and how to control a high-voltage circuit with a solid-state relay. **Vol. 2** is a new collection of 154 interface circuits designed around the BASIC Stamp 2.

☉ Blue Part No. = Limited Quantity Available

| Part No. | Product No. | 1       | 10 |
|----------|-------------|---------|----|
| 282925   | 28113☉      | \$59.95 |    |

## Advanced Toddler Robot Kit

Walking robots have mechanical and software interdependencies that require in-depth examples and explanation. The Advanced Robotics text is an introduction to the Toddler robot's basic movements. Students using the Toddler robot will learn advanced embedded programming with BASIC, efficient code development, sensor feedback, and general control. Because of the number of possible movements, we consider the Toddler to be appropriate for those aged 14 and above.

• Height: 10" • Weight: 4.0 lbs.  
**Includes:** 155-page Advanced Robotics text in the Stamps in Class style and the 351-page BASIC Stamp Manual ☉ Blue Part No. = Limited Quantity Available

| Part No. | Product No. | 1        | 10       |
|----------|-------------|----------|----------|
| 282837   | 2731☉       | \$248.95 | \$236.49 |

## BS2 Educational Starter Kit

This complete "Getting Started" kit is enhanced to include the *What's a Microcontroller?* (WAM) curriculum. Includes all of the BASIC Stamp hardware required to complete the activities and challenges. With this latest edition of the kit, you will receive the *What's a Microcontroller?* parts and text making this combination a bona fide "Getting Started" kit.

With the WAM kit you'll get your feet wet through a series of over 40 activities designed to provide you with the best possible introduction to the world of BASIC Stamps.

**Includes:** BASIC Stamp 2 module, Board of Education Programming Board, BASIC Stamp Manual, CD-ROM, jumper wires and a serial cable

| Part No. | Product No. | 1        | 10       |
|----------|-------------|----------|----------|
| 282829   | 27207       | \$158.95 | \$152.95 |

## Basic Analog and Digital Parts & Text V1.2

Covers the essentials of 8-bit A/D & D/A conversion using a BASIC Stamp. Introduces PBASIC commands for A/D conversion with resistor/capacitor circuits, interfacing an ADC0831 8-bit A/D converter, scaling analog outputs into meaningful digital values, analyzing time-varying signals and using PWM as analog output.

**Includes:** BASIC Stamp 2 module, Board of Education Programming Board, BASIC Stamp Manual, CD-ROM, jumper wires and a serial cable

| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 282950   | 28155       | \$43.95 | \$40.29 |

## Stamp Works Kit Plus

This all-in-one kit takes you beyond theory, into a well-written collection of 35 experiments that will teach you first class BASIC stamp programming. You'll learn to get the most out of the BASIC Stamp and to increase its versatility by connecting to popular active and passive components.

• Weight: 10 lbs.

**Includes:** Stamp Works experiments and Basic Stamp Source Code book, Basic Stamp Syntax and Reference Manual, professional development board (28138), 2 x 16 parallel LCD with custom cable, BS2 module, 3 rolls of 100' 22AWG wire, photoresistor, resistor and capacitor assortment, NE555CN timer, (2) 74HC165N parallel-in/serial-out 8-bit shift register, LM358N low-power dual op amp, DS1620 digital thermometer and thermostat, (2) 74HC595CN shift register, 24LC32A 32k I2C serial EEPROM, MC14489 lamp display driver, serial cable, USB cable, stepper motor, servo motor, CD-ROM software and documentation, and 12VDC @ 1A power supply.

| Part No. | Product No. | Price    |
|----------|-------------|----------|
| 661116   | 27297 kit   | \$248.95 |

## BS2P Professional Starter Kit

Provides the engineer with all the parts required to get started with the BS2P microcontroller. The kit includes a selection of components and ready-to-run source code that will help master some of the exciting new features of the BS2P.

**Includes:** Manual, BS2P demo board, BS2P-24 microcontroller, DB9 (serial) programming cable, PCF8583 chip, 32.678kHz crystal, 24LC32 serial EEPROM, DS1822 thermometer, (3) 4.7K resistors, jumper wires

| Part No. | Product No.             | 1        | 10       |
|----------|-------------------------|----------|----------|
| 202323   | 27235 kit               | \$194.95 | \$175.49 |
| 282984   | 45187 BS2P40 demo board | 88.95    | 84.95    |

## Commercial Customers

Open an account with us to consolidate your monthly billing and save time.  
1-800-831-4242



Interested in more kits? Visit Jameco's RobotStore at [www.RobotStore.com](http://www.RobotStore.com)

## Servo Controller

Controls up to 16 servos and may be networked together to control 32 servos using a single I/O line.

- 2400 to 384k baud serial port
- 63 ramp rates
- 16-bit PWM timers
- RS-232 serial protocol



| Part No. | Product No. | Description      | 1       | 10      |
|----------|-------------|------------------|---------|---------|
| 282896   | 28023       | Servo controller | \$38.95 | \$36.95 |

## High-Efficiency Robotic Servo

Excellent power-to-weight ratio for robotic projects.

- Supply voltage: 4.8-6 volts
- Speed: 16 seconds to 60°
- Torque: 49 oz.-in. @ 4.8V
- Can be operated by P/N 151001, pg 163
- 0.8"W x 1.4"D x 1.6"H



| Part No. | Description   | 1       | 10      |
|----------|---------------|---------|---------|
| 157067   | Robotic servo | \$19.95 | \$17.95 |

## Giant Robotic Ball-Bearing Servo

Extremely powerful! Perfect for large robotic projects where power is a must.

- Torque: 161 oz.-in.
- Power supply: 4.8-6 volts
- Speed: 19 seconds to 60°
- Can be operated by P/N 151001, pg 163



| Part No. | Description         | 1       | 10      |
|----------|---------------------|---------|---------|
| 166351   | Giant robotic servo | \$44.95 | \$42.69 |

## 26-Pitch Press-Fit Gears and Gear Set

- Works with DC motors with 0.156" and 0.078" shaft diameter
- Heavy-duty plastic construction
- Diametral pitch: 26
- Material: polyethylene resin

131801: 20-piece gear set includes two each of 10, 20, 30, 40 and 50 teeth gears and ten bushings

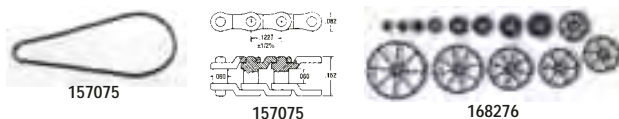


| Part No. | Description  | Bore Size | Dia.   | Works w/<br>Shaft Dia. | Outer<br>Gear Dia. | 1      | 10     | 100    |
|----------|--|-----------|--------|------------------------|--------------------|--------|--------|--------|
| 162077   | 20 teeth gear  | 0.149"    | 0.756" | 0.156 (5/32)"          | 0.842" .....       | \$ .89 | \$ .69 | \$ .49 |
| 162085   | 30 teeth gear  | 0.149"    | 1.142" | 0.156 (5/32)"          | 1.225" .....       | .89    | .69    | .49    |
| 162392   | Bushing  | 0.075"    | —      | 0.078 (5/64)"          | — .....            | .28    | .25    | .22    |
| Part No. | Description  |           |        |                        |                    | 1      | 10     | 50     |
| 131801   | Gear set – 20 pieces of all the gears and bushings shown above ..... |           |        |                        |                    | \$7.99 | \$7.29 | \$6.49 |

## 16-Pitch Sprocket Set and Chain

- Operates in high humidity and corrosive environments
- Chain links can easily be added or removed to adjust total length
- Chain tension load: 2.0 lbs.

168276: 14-piece sprocket set includes 1 each of the following: 8, 9, 10 teeth with 1/8" bore size; 12, 15, 16, 18, 20, 24, 30, 32, 36, 40 and 48 teeth with 1/4" bore size



| Part No. | Description                                      | 1      | 10     | 25     |
|----------|--|--------|--------|--------|
| 157075   | Drive chain (12" long)                           | \$9.95 | \$8.95 | \$7.95 |
| 168276   | Sprocket set – 14 pieces (see description above) | 29.49  | 26.49  | 23.89  |

## Hub and 48-Pitch Gear Set

- Low coefficient of friction requires little or no lubrication
- Residual stress removed by annealing process

168284: 12-piece gear set includes 1 each of the following: 10 teeth with 3/32" bore size; 14 and 16 teeth with 1/8" bore size; 20, 24, 30, 36, 44, 54, 66, 84 and 100 teeth with 1/4" bore size

| Part No. | Description                                     | 1      | 10     | 25     |
|----------|---|--------|--------|--------|
| 157104   | 1/4" bore aluminum mounting hub with set screws | \$5.19 | \$4.69 | \$4.15 |
| 168284   | Gear set – 12 pieces (see description above)    | 39.95  | 34.95  | 31.95  |



## "D" Type Bore Pinion Gears

- Black Nylon
- "D" type bore

| Part No. | Description   | Pitch | Bore Dia. | Dia.   | 1      | 10     | 100    |
|----------|---------------|-------|-----------|--------|--------|--------|--------|
| 662581   | 30 tooth gear | 18    | 0.232"    | 0.610" | \$ .89 | \$ .69 | \$ .49 |
| 662590   | 32 tooth gear | 9     | 0.315"    | 1.325" | 1.09   | .89    | .69    |



## Spider Couplers

- Used with motors
- 1 set screw per hub
- Hub OD: 0.625" Dia.
- Hub length: 0.56"
- Parts sold individually



| Part No. | Description            | 1      | 10     | 50     |
|----------|------------------------|--------|--------|--------|
| 162288   | .125" (3.18 mm) ID hub | \$1.35 | \$1.15 | \$ .86 |
| 161998   | .197" (5.00 mm) ID hub | 1.09   | .93    | .70    |
| 162270   | .250" (6.35 mm) ID hub | 1.35   | 1.19   | 1.09   |
| 162000   | Rubber spider          | 1.29   | 1.15   | 1.05   |

## Climax Spider Shaft Coupler

- 2 set screws (10-32 x 1/8)
- Size: 0.75"L x 0.5"OD

| Part No. | Description             | 1      | 10     | 100    |
|----------|-------------------------|--------|--------|--------|
| 138288   | .250" ID sleeve coupler | \$4.49 | \$4.05 | \$3.65 |



## Gears and Shafts Kit

Bag of 10 gears, shafts and accessories. Great for science projects. All parts fit 2mm shaft motors.

| Part No. | Description          | 1      | 10     |
|----------|----------------------|--------|--------|
| 215298   | Gears and shafts kit | \$5.59 | \$4.99 |



## Accelerometer Evaluation Boards

### Dual Axis

Evaluation board for the ADXL202, dual axis, 2g accelerometer.

177308: features RS-232 interface to connect to PC serial ports. Also includes software to display real time acceleration data.



| Part No. | Product No.   | Description | 1       | 10      |
|----------|---------------|-------------|---------|---------|
| 177287   | ADXL202EB     | Dual axis   | \$59.95 | \$53.95 |
| 177308   | ADXL202EB-232 | w/ RS-232   | 164.65  | 150.29  |

## Accelerometer

### Triple Axis Accelerometer

- Dynamic range and excellent frequency response
- Current: 24mA
- Shielded cable: 2-foot pigtail
- Acceleration range: ±4g
- Size: 1.9"L x 1.0"W x 0.8"H



Requires: 5VDC power supply, not included (recommend P/N 164101, pg 240)

| Part No. | Description            | 1        | 10       |
|----------|------------------------|----------|----------|
| 141575   | CXL04LP3               | \$339.95 | \$319.95 |
| 141583   | Digital interface card | 324.39   | 293.95   |

## Mobile Robotic Car Design Book

**McGraw Hill** This book describes in complete detail how to build a robotic car. It provides detailed photographs, schematics, list of vendors for parts, and provides software code for the processor and the digital signal processor with an explanation of what the code does and why. Printed circuit board files are free and can be downloaded from [www.books.mcgrawhill.com/authors/Kachroo](http://www.books.mcgrawhill.com/authors/Kachroo) Mellodge. (278 pages, 2005)



| Part No. | Description               | Price   |
|----------|---------------------------|---------|
| 313592   | Mobile Robotic Car Design | \$23.95 |

## Flex Sensor



- Maximum resistance: 30kΩ to 40kΩ, proportional to the degree of flexing or bending
- Nominal resistance: 10Ω
- Applications: virtual reality data gloves, robotic, bio-metric, physics and engineering

| Part No. | Description | 1       | 10      |
|----------|-------------|---------|---------|
| 150551   | Flex sensor | \$12.95 | \$11.65 |

More at [www.RobotStore.com](http://www.RobotStore.com)



## Hovercraft Kit ● 25-piece kit

This super kit is fun to build and a "blast" to run, but there's a bonus: education! Through the kit's curriculum (available online), budding scientists and engineers will learn principles of electricity and circuits, propellers, conversion of energy and other core concepts. And at the end of the learning process, they'll have a cool, battery-powered hovering vehicle that can glide over any smooth surface, even water!



| Part No. | Description          | Price   |
|----------|----------------------|---------|
| 285641   | Hovercraft kit ..... | \$21.79 |



## Fuel Cell Car Kit ■ 39-piece kit

Build a car with this kit that runs on water and watch as it turns water into hydrogen and oxygen, forming a gas to power your fuel cell car. Includes manual, explains how to build a solar powered car, the effects of direct and indirect radiation, the characteristics of a solar module, how to construct and load a reversible fuel cell, and the decomposition of water in the fuel cell.



| Part No. | Description                            | 1        | 10       |
|----------|--|----------|----------|
| 307723   | Fuel cell car and experiment kit ..... | \$139.95 | \$125.95 |



## Power House Kit ■ 59-piece kit

Now you can build, heat and illuminate an energy-efficient house. Get to know and use the power of the sun, wind and new technologies. Conduct 70 experiments and build more than 20 devices with this Power House Kit.

**Includes:** 100-page full color manual



| Part No. | Description           | 1        | 10       |
|----------|-----------------------|----------|----------|
| 307731   | Power house kit ..... | \$139.95 | \$125.95 |



## Obstacle Avoidance Robot Kit ▲ 107-piece kit

Six crank motion legged robot utilizes an infrared light sensing system to find obstacles and maneuvers itself around them. This IR detection kit includes an infrared diode, photo diode, IC, 2 DC motors and all hardware.



| Part No. | Description | Dimensions             | Wt. (lbs.) | 1       | 10      |
|----------|-------------|------------------------|------------|---------|---------|
| 140821   | Spider kit  | 12.0"L x 7.0"W x 3.5"H | 1.2        | \$51.49 | \$46.89 |

## MONDO•TRONICS

## Flexinol Muscle Wires®

These unique nickel-titanium alloy Muscle Wires® actually shorten in length when electrically powered, and can lift thousands of times their own weight.

• Length: 1 meter **Includes:** Crimps and instructions

| Part No. | Description | Wire Dia.<br>(microns) | Linear Resistance<br>(ohm/m) | Typical Current<br>(mA) | Deform Weight*<br>(grams) | Recovery Weight*<br>(grams) | Typical<br>Rate** | Pricing |         |
|----------|-------------|------------------------|------------------------------|-------------------------|---------------------------|-----------------------------|-------------------|---------|---------|
|          |             |                        |                              |                         |                           |                             |                   | 1       | 10      |
| 141321   | 100LT       | 100                    | 150                          | 180                     | 28                        | 150                         | 33                | \$17.95 | \$15.95 |
| 141874   | 150LT       | 150                    | 50                           | 400                     | 62                        | 330                         | 20                | 16.95   | 15.29   |
| 160055   | 375LT       | 375                    | 8                            | 2750                    | 393                       | 2000                        | 4                 | 22.95   | 19.95   |

\* Multiply by 0.0098 to get force in Newtons \*\* Cycles per minute, in still air, at 20° Centigrade

Over 2,000 Products Available!



Robotics Kits,  
Parts & more

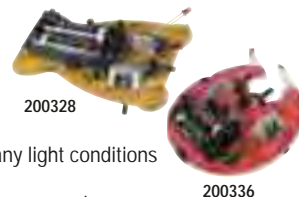
[www.RobotStore.com](http://www.RobotStore.com)

## Velleman Micro Bug Kits ■

A brightly colored miniature bug-shaped robot that is attracted to light.

- Two open chassis sub-miniature motors
- LED "eyes" indicate driving direction
- Adjustable light sensitivity that suits almost any light conditions
- Stops in total darkness • Size: 4.0" x 2.4"

**Requires:** 2 AAA batteries (recommend P/N 249181, pg 250)



| Part No. | Product No. | Description | Pieces | 1       | 10      |
|----------|-------------|-------------|--------|---------|---------|
| 200328   | MK127       | Running     | 26     | \$18.95 | \$16.95 |
| 200336   | MK129       | Crawling    | 29     | 21.45   | 19.35   |

## Motorized Wooden Kits

*Kits, ideal for your child.*

These kits come with "kid friendly" pre-punched wooden parts, gearbox, gears, shafts, switch, motor, and battery holder. A marvelous way to learn about gears and transmissions for ages 8 and up. These kits require no glue or soldering, just a few simple hand tools, and 2 AA batteries (not included; see pages 250 & 251 for batteries).

| Part No. | Description             | Price   |
|----------|-------------------------|---------|
| 242915   | Stegosaurus kit .....   | \$11.95 |
| 242923   | Tyrannosaurus kit ..... | 11.95   |

Tyrannosaurus Kit



## Robotic Arm Trainer Kit ▲ 109-piece kit

*Five Axes of Motion*

Teaches basic robotic sensing and locomotion principles while testing your motor skills as you build and control the arm. This unit can be commanded or instructed through its wired controller to grab, release, lift, lower, rotate wrist and pivot sideways.

- Max. length: 14.2" • Max. height: 20.1"
- Max. lifting capacity: 4.6 oz. • Grip opens to 2" wide
- Shoulder movement @ 120° • Elbow moving range @ 135°
- Wrist rotation clockwise or counter clockwise: 340°
- Rotates left to right at the base 350° • Weight: 4.5 lbs.

**Requires:** 4 D batteries (recommend P/N 215845, pg 250)

| Part No. | Description  | 1       | 10      |
|----------|--|---------|---------|
| 157366   | Robotic arm kit (unassembled) .....                            | \$75.79 | \$68.25 |
| 159345   | Robotic controller software (DOS 4.2 & up, Windows® 95/98) ... | 84.95   | 76.49   |



*How it works... Pressing the switch lets power flow from the batteries through the Muscle Wire®, heating it and causing it to contract, raise the lever and lift the weight. When power is removed, the Muscle Wire® cools and relaxes, and the weight helps it return to its starting position.*



## LEGO® Mindstorms® NXT Kit ■ 577-piece kit

Create the smartest, strongest and most advanced LEGO robot ever. The new NXT Intelligent Brick, your robot's "brain," features a powerful 32-bit microprocessor and more memory, plus support for USB 2.0, Bluetooth and more!

- New sound sensor
- New ultrasonic visual sensor responds to movement
- Improved touch sensor reacts to touch and release
- Light sensor detects different colors and light intensities

**Requires:** 6 AA batteries required (not included) • Blue Part No. = Limited Quantity Available

| Part No. | Description               | Price    |
|----------|---------------------------|----------|
| 671998   | Lego Mindstorms NXT kit • | \$249.99 |





## 1 Amp Power Supply Kit ■ 12-piece kit

Provides a regulated voltage adjustable between 1.2 and 35 volts at 1 amp. LM317 regulator gives you remarkably better ripple and regulation characteristics than conventional regulators.

- Output current max.: 1.5A
- Max. input voltage: 40V
- Max. dissipation: 15W (cooled)

**Requires:** 25.2VCT @ 2A quick connect power transformer (recommend P/N 102103 or equivalent, pg 245)

| Part No. | Product No. | Dimensions    | 1       | 10      |
|----------|-------------|---------------|---------|---------|
| 117621   | K1823       | 2.1"L x 2.1"W | \$12.95 | \$11.65 |



## DC to Pulse-Width-Modulator Kit ▲ 40-piece kit

The circuit converts a DC voltage into a series of pulses, directly proportional to the value of the DC voltage.

- Operating voltage: 8 to 35VDC
- PWM frequency: 100Hz to 5kHz (adjustable)
- Min. consumption: 35mA
- Max. output current: 6.5A
- Efficiency: better than 90% at full load
- Adjustable sensitivity: 2.5 to 35VDC
- PWM range: 0 to 100%

| Part No. | Product No. | Dimensions            | Wt. (lbs.) | 1       | 10      |
|----------|-------------|-----------------------|------------|---------|---------|
| 120539   | K8004       | 3.3"L x 1.9"W x 1.8"H | 0.5        | \$22.95 | \$20.49 |



## Dual Adj. Regulated Power Supply Kit ■ 48-piece kit

Build a dual adjustable power supply for your circuits.

- Adjustable positive/negative supplies  $\pm 5$  to  $\pm 15$ VDC, 175mA-750mA per supply
- LED on indicator
- 120VAC input
- PC board construction

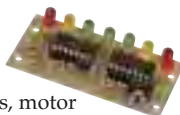
| Part No. | Cross Ref. No. | Dimensions            | Wt. (lbs.) | 1       | 10      |
|----------|----------------|-----------------------|------------|---------|---------|
| 20626    | JE215          | 5.1"L x 3.5"W x 2.0"H | 2.1        | \$22.95 | \$20.49 |



## DC Voltage Monitor Kit ● 46-piece kit

If battery status is important, you need this kit. It uses 7 LEDs to monitor 12VDC in 1V, 0.5V, or 0.25V steps. Monitor 8V or 5V in 0.25V steps. Great for boats, motor homes, model planes or race car NiCADs.

| Part No. | Cross Ref. No. | Dimensions    | 1      | 10     |
|----------|----------------|---------------|--------|--------|
| 181833   | VM-1           | 2.7"L x 1.3"W | \$8.95 | \$7.95 |



## Lead Acid Battery Charger Kit ■ 62-piece kit

For charging and maintaining both open and sealed type 6V or 12V lead-acid batteries. Can be hooked-up to the unit for an indefinite time, and will be kept in optimal condition.

**Requires:** 18V/25VA transformer (P/N 149957, pg 245)

| Part No. | Description                   | 1       | 10      |
|----------|-------------------------------|---------|---------|
| 239521   | Lead acid battery charger kit | \$36.95 | \$35.15 |

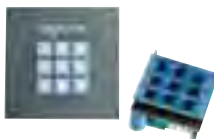


## Code Lock Kit ■ 67-piece kit

- Switch an alarm on and off or open door locks
- 3000+ codes possible
- LED indicates state
- Pulse or switch outputs
- Relay contact rating: 5A/220V

**Requires:** 8-12VAC power supply (P/N 100061, pg 243)

| Part No. | Product No. | Dimensions    | Wt. (lbs.) | 1       | 10      |
|----------|-------------|---------------|------------|---------|---------|
| 127554   | K6400       | 1.7"L x 1.8"W | 0.5        | \$25.95 | \$24.65 |



## Jumbo Single-Digit Clock ■ 37-piece kit

- Time displayed as sequence of digits
- Bright 57mm (2.25") jumbo single-digit red 7-segment display
- Single button operation
- "Blank Display" function
- Accuracy: 30ppm
- Power supply: 9 - 12VDC @ 150mA (max.)

| Part No. | Product No. | Dimensions            | 1       | 10      |
|----------|-------------|-----------------------|---------|---------|
| 645044   | K3400       | 2.9"L x 2.3"W x 1.3"D | \$26.55 | \$25.25 |



## Multifunction Clock Kit ■ 335-piece kit

A multifunctional clock with six 1.42" high digits that indicate time, date and temperature. Includes a countdown function to a specific date with the last day displayed in HH:MM:SS. Also functions as a chronometer with lap function (1 second resolution), a scoreboard (two players or teams, counts up to 199), a random number generator from 00 to 99, 2-digit dice, counter and chime.



US and European display option for time, date, and temperature formats.

- Fixed 433.92MHz transmitter frequency
- Temp. range: -20°C to +70°C (10 resolution): 0°F to +1500°F (20 resolution)
- Memory back-up option: 9V battery or rechargeable battery
- Relay output: 1A/24V max
- Power supply: 12VDC @ 300mA (not included)
- PCB size: 10"L x 32"W
- RF key chain remote control (battery not included)

| Part No. | Description             | 1       | 10      |
|----------|-------------------------|---------|---------|
| 319281   | Multifunction clock kit | \$99.95 | \$94.50 |

## Second to Minute Timer Modules

By triggering the timer, the contacts will be engaged. Once this time has expired, the relay will remain in the off state for 3-60 seconds. It then restarts, repeating the on and off process until power is disconnected.



- Output contact rating: 5A @ 200VAC
- Dimensions: 3.0"L x 1.7"W x 1.2"H

**Requires:** Power supply 12V @ 50mA (recommend P/N 100095, pg 241)

Blue Part No. = Limited Quantity Available

| Part No. | Description | 1       | 10      |
|----------|-------------|---------|---------|
| 147871   | I-1 timer   | \$19.95 | \$17.95 |
| 147846   | I-10 timer  | 24.05   | 22.91   |

## Function Generator Kit ■ 21-piece kit

Sine, Triangle and Square Wave

Great for prototyping electronic circuits, whether analog or digital! Produces sinusoidal, triangular, and square waveforms at frequencies continuously variable from 1Hz to 100kHz.

- 21-piece kit (chip, components, PC board, hardware)

**Requires:** 12VDC supply or  $\pm 6$ VDC split supply (recommend P/N 20626, pg 317)

| Part No. | Cross Ref. No. | Dimensions    | 1       | 10      |
|----------|----------------|---------------|---------|---------|
| 20685    | JE2206         | 4.1"L x 1.5"W | \$24.95 | \$22.95 |



## Logic Probe Kit ● 13-piece kit

This logic probe tests digital circuits at various points, and shows whether that point is high, low, or constantly changing. This will help you understand and troubleshoot logic gates, timers, clocks, counters, pre-scalers, and other digital circuits.

| Part No. | Description     | Dimensions        | 1      | 10     |
|----------|-----------------|-------------------|--------|--------|
| 662725   | Logic probe kit | 4.0"L x 0.75"Dia. | \$9.95 | \$8.96 |



## Infrared Transmitter/Receiver Kit ● 26-piece kit

Transmit a 40kHz modulated IR signal a distance of 6' to 8'. Can be used as a remote switch to turn objects OFF and ON by infrared.

The IR receiver will only receive 40kHz modulated infrared light. You can configure the output for normally ON or normally OFF operation. This allows you to use it as a security sensor or as a remote control switch. You can use the receiver to test TV or VCR remote controls.

- Transmitter size: 1.0"L x 0.8"W
- Receiver size: 1.4"L x 1.2"W

**Requires:** 6 to 15VDC battery (recommend P/N 151095, pg 250)

| Part No. | Cross Ref. No. | Description          | 1       | 10      |
|----------|----------------|----------------------|---------|---------|
| 177092   | IR-2           | Transmitter/receiver | \$24.95 | \$22.49 |



We offer free technical documents for most of the products we carry. Find them easily on the product specification pages at [www.Jameco.com](http://www.Jameco.com).

## Super Snooper Big Ear Audio Amplifier Kit

17-piece kit

Listen through walls, hear conversations across the room or listen to sounds a block away. Add a parabolic reflector or mount the microphone in a tube to isolate unwanted noise and make a directional microphone.

• Operating voltage: 9VDC (recommend P/N 151095, pg 250)

Includes: Instructions, outputs for speakers or headsets, and schematic

| Part No. | Description         | Dimensions            | 1       | 10     |
|----------|---------------------|-----------------------|---------|--------|
| 151204   | Audio amplifier kit | 1.8"L x 1.0"W x 0.6"H | \$10.95 | \$9.95 |

## FM Stereo Transmitter Mini Kit

37-piece kit

Run your own FM radio station! Plug any stereo signal into this unit and it will be transmitted to any FM radio. Tuneable from 88–108MHz. Plug in a CD player or tape deck and you have a wireless link to an FM radio within 200 feet. Clarity is approximately 40dB stereo separation.

Requires: 9VDC power supply (recommend P/N 151095, pg 250)

| Part No. | Description         | Dimensions    | 1       | 10      |
|----------|---------------------|---------------|---------|---------|
| 151239   | FMST-100 stereo kit | 2.7"L x 2.0"W | \$29.95 | \$26.95 |

## velleman FM Transmitter

26-piece kit

Mini FM transmitter (100–108MHz) ideal for family broadcasts, baby monitors and security. May be received by any portable FM radio or tuner.

• Integrated pre-amplifier (sensitivity 5mV)

Requires: 9–12VDC power supply (recommend P/N 20626, pg 317)

| Part No. | Product No. | Dimensions    | 1       | 10      |
|----------|-------------|---------------|---------|---------|
| 117604   | K1771       | 1.8"L x 2.8"W | \$10.75 | \$10.55 |

## velleman FM Radio Kit

65-piece kit

Easy to assemble – no coils to wind. Receives the complete FM band of 88–108MHz.

• With on/off switch, volume control, and LED indicator

• Single adjustment

Requires: 12VDC @ 100mA power supply (recommend P/N 100095, pg 241)

| Part No. | Product No. | Dimensions    | 1       | 10      |
|----------|-------------|---------------|---------|---------|
| 211772   | MK118       | 4.8"L x 3.3"W | \$21.95 | \$19.95 |

## velleman Universal Mono Pre-Amplifier

17-piece kit

For audio applications with insufficient input signal.

• Output impedance: 1k $\Omega$  • Max. input signal: 40mV

• Frequency range: 20Hz - 20kHz +/-3dB

• Adjustable output level: 40dB max.

Requires: 10/30VDC @ 10mA power supply (recommend P/N 20626, pg 317)

| Part No. | Product No. | Dimensions    | 1      | 10     |
|----------|-------------|---------------|--------|--------|
| 117612   | K1803       | 1.2"L x 1.8"W | \$8.95 | \$7.95 |

## velleman 10 LED Mono VU Meter Kit

36-piece kit

• Instant visualization of audio signal levels  
• Easy hook up to a LINE level (LOW input) signal source  
• Special input (HIGH input) is provided, which allows direct connection to a speaker

• Frequency range: 20Hz to 30kHz

• Dot or bar display mode selectable

Requires: 15VDC @ 300mA max. power supply (P/N 189982, pg 242)

| Part No. | Product No. | Dimensions    | Wt. (lbs.) | 1       | 10      |
|----------|-------------|---------------|------------|---------|---------|
| 147643   | K4304       | 2.7"L x 1.4"H | 0.3        | \$16.99 | \$15.99 |

## 7-Watt Amplifier Kit

22-piece kit

- Music output power: 7W @ 4 $\Omega$
- RMS output: 3.5W @ 4 $\Omega$  & 2W @ 8 $\Omega$
- Harmonic distortion: 0.05% (1W/1kHz)
- Frequency response: 20 to 20kHz (-3dB)
- Short circuit/overload protection

Requires: 15VDC (8–18VDC) @ 500mA power supply (recommend P/N 155803, pg 242); speakers

| Part No. | Product No. | Dimensions    | 1       | 10      |
|----------|-------------|---------------|---------|---------|
| 127255   | K4001       | 2.2"L x 1.4"W | \$13.95 | \$12.49 |

## velleman 30-Watt Stereo Power Amplifier

38-piece kit

General purpose stereo amp for audio applications.

- RMS output: dual 15W @ 4 $\Omega$  or dual 10W @ 8 $\Omega$
- Frequency bandwidth: 7Hz to 60kHz (-3dB)
- Separation: 70dB
- Supply voltage: 24VCT @ 2A (recommend P/N 101865, pg 245)

| Part No. | Product No. | Dimensions    | 1       | 10      |
|----------|-------------|---------------|---------|---------|
| 129138   | K4003       | 2.8"L x 2.0"W | \$29.95 | \$26.95 |

## 200W Mono/Stereo Amplifier

57-piece kit

Three keywords to describe this amplifier: **universal**—a stereo or a mono amplifier with three input sensitivity settings; **robust**—overload and short-circuit protection against incorrect power supply polarity and thermal protection; and lastly **compact**.

- RMS output power: 2 x 50W/4 $\Omega$ ; 2 x 40W/8 $\Omega$
- RMS mono-bridged power: 100W/8 $\Omega$
- Total music output: 200W
- Harmonic distortion: 0.01% @ 1kHz
- Signal to noise ratio: 102dB
- Stereo channel separation: 85dB
- Input impedance: 22k $\Omega$
- Input sensitivity: 300mV/550mV/1V switchable
- Power supply:  $\pm$ 28VDC

| Part No. | Product No. | Dimensions            | 1       | 10      |
|----------|-------------|-----------------------|---------|---------|
| 645301   | K4004B      | 8.3"W x 3.4"H x 2.5"D | \$91.15 | \$89.75 |

## Guitar Pre-Amplifier w/ Headphone Output

34-piece kit

An electric guitar cannot be connected to just any amplifier or audio installation. This pre-amplifier has been designed for this purpose and provides you with a headphone output, allowing you to practice without disturbing others. Fitted with a special device for tone adjustment to create your own sound.

- Headphone output: 2 x 50mW/32 $\Omega$  (max.)
- Sound adjustment
- Power supply: 9V battery (not included)
- Adjustable input sensitivity

| Part No. | Product No. | Dimensions            | 1       | 10      |
|----------|-------------|-----------------------|---------|---------|
| 645327   | K4102       | 4.1"L x 2.8"W X 1.2"H | \$34.99 | \$32.99 |

## velleman Sound Generator Kit

61-piece kit

- Produces 10 different sounds w/ adjustable speed: guns, sirens, car engines, explosions, tunes, screeching tires, phaser guns
- Push-button keyboard

Requires: 8 $\Omega$ , 1 watt speaker; 9V battery (recommend P/N 151095, pg 250)

| Part No. | Product No. | Dimensions    | 1       | 10      |
|----------|-------------|---------------|---------|---------|
| 127562   | K4401       | 2.8"L x 2.8"W | \$29.95 | \$26.95 |

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with suggestions for products you'd like to see in future catalogs.



## Siren Kit 20-piece kit

- Oscillator is off until you press the switch, then a rising tone is produced until a steady value is reached
- If switch is released, tone starts dropping until it cuts off
- Circuit designed around a dual op amp connected as an oscillator and driver



**Requires:** 9V battery (recommend P/N 151095, pg 250)

| Part No. | Description | Dimensions            | 1      | 10     |
|----------|-------------|-----------------------|--------|--------|
| 125137   | 9V siren    | 2.0"L x 0.8"W x 0.5"H | \$7.95 | \$7.15 |

## FM Stereo Transmitter Kit 45-piece kit

Transmit to any FM radio tunable from 88 to 108MHz. Compatible with any of your audio system components. Plug in your CD player or tape deck and have a wireless link to any FM radio. Even transmit music from your computer to any FM Radio. Clarity is excellent; approx. 40dB stereo separation. Transmits up to 200 ft. *(Does not include enclosure.)*



| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 662741   | FMC-2000    | \$54.95 | \$46.46 |

## Radio Direction Finder Kit 69-piece kit

A direction finder antenna that connects to any UHF/VHF Ham Radio or Scanner; great for finding hidden transmitters that are raising havoc with your repeater. Tune your radio to the frequency of the transmitter you are trying to locate (from 140MHz to 500MHz); you will hear a tone and the transmitter modulation at the same time. To further check your progress, the signal level meter of the radio should rise.



| Part No. | Product No. | 1       | 10      |
|----------|-------------|---------|---------|
| 662733   | SDF-1       | \$44.95 | \$40.46 |

## Electronic Record/Playback Module 64-piece kit

High-quality, natural voice/audio reproduction. Can be used to greet visitors, play pranks, or warn off burglars. EEPROM technology with 100-year message retention, and up to 20 seconds of recording time per module.

- Speaker output: 12mW, 8 - 16Ω
- Sampling frequency: 6.4kHz
- Power consumption: DC power supply: 4mA standby, 100mA (max.) during playback; battery operated: 20μA standby, 100mA (max.) during playback
- Power supply: 8 - 18VDC or 6V battery (4 AA or AAA not included)



| Part No. | Product No. | Dimensions            | 1       | 10      |
|----------|-------------|-----------------------|---------|---------|
| 645335   | K8030       | 3.7"L x 2.9"W x 1.0"H | \$33.85 | \$29.59 |

## Relay Card 29-piece kit

Connecting a number of relays to the outputs of an electronic network may seem very simple, but in reality it could create some problems regarding the cabling. This kit provides an attractive and compact alternative. Easy to assembly and can be connected instantly.

- 4 x 3A relay outputs

**Requires:** 9VDC @ 300mA power supply (recommend P/N 133891, pg 241)

| Part No. | Description    | Dimensions    | 1       | 10      |
|----------|----------------|---------------|---------|---------|
| 239476   | Relay card kit | 3.0"L x 2.7"W | \$19.99 | \$18.99 |

## USB Interface Card Module

Interface board has 5 digital input channels and 8 digital output channels. In addition, there are two analog inputs and two analog outputs with 8-bit resolution. Inputs/outputs can be expanded by connecting more cards to the PC's USB port (max. of four).

### Diagnostic/Test Software

- Separate output/input test
- Clear all/set all function
- Analog input bar-graph indication
- Analog output set sliders
- Counter function on inputs 1 and 2 with adjustable debounce

| Part No. | Description               | 1       | 10      |
|----------|---------------------------|---------|---------|
| 645263   | USB interface card module | \$65.55 | \$64.49 |



## 200W Power Amplifier Module

- Fully discrete design using epitaxial Darlington transistors
- DC supply circuit on board with LED indication
- Ideal for active speaker system or subwoofer, guitar amp, home theatre systems, instrument amp, etc.
- Comes fully adjusted and tested
- Overload and short-circuit protection
- 200W music power @ 4Ω load
- 70Wrms power @ 8Ω load
- Distortion: 0.02% @ 1kHz/10W
- Frequency response: 3Hz to 200kHz (-3dB)
- Power supply: 25-30VAC, 120VA
- Recommended power transformers: 230VAC input, 2 x 30VAC output; 115/230VAC input, 2 x 25VAC output
- 100Wrms power @ 4Ω load
- Damping factor: >800
- Signal to noise ratio: 115dB
- Sensitivity: 0.6Vrms
- PCB dimensions: 107x62mm (approx.)



| Part No. | Product No. | Dimensions    | 1       | 10      |
|----------|-------------|---------------|---------|---------|
| 645239   | VM100       | 4.2"L x 2.4"W | \$66.05 | \$64.99 |

## Wide Band Amplifier Kits

### 662750: 7-pieces

- 1MHz to 1.5GHz, 7.5dB NF
- 1dB compression = +11dBm
- Gain: 1MHz - 8dB to 1.5GHz - 5dB
- Power requirements: 12VDC @ 50mA

### 662768: 7-pieces

- 1MHz to 2.5GHz, 2.8dB NF
- 1dB compression = 0dBm
- Gain: 1MHz - 20dB to 2.5GHz - 6dB
- Power requirements: 12VDC @ 6mA

### 662784: 11-pieces

- Gain: 4MHz - 29dB to 1.9GHz - 17dB
- Power requirements: 12VDC @ 56mA
- 4MHz to 1.9GHz, 3dB NF
- 1dB compression = +8dBm

| Part No. | Product No. | Dimensions    | 1       | 10      |
|----------|-------------|---------------|---------|---------|
| 662750   | WBA4        | 1.2"L x 0.8"W | \$14.95 | \$13.46 |
| 662768   | WBA6        | 1.2"L x 0.8"W | 19.95   | 17.96   |
| 662784   | WBA64       | 2.5"L x 0.8"W | 29.95   | 26.55   |



## Audio Stereo Amplifier Kit 32-piece kit

This kit teaches how amplifiers take a small signal and amplify it to drive two small speakers or headphones. Provides up to 1-Watt of low-distortion audio power. The harmonic distortion is 0.2% and the voltage gain is up to 46dB.

| Part No. | Product No. | Dimensions    | 1      | 10     |
|----------|-------------|---------------|--------|--------|
| 662670   | EBST-11     | 2.8"L x 2.3"W | \$9.95 | \$8.96 |



## Velleman Voice Activated LEDs Kit 33-piece kit

Uses sound to activate the flashing of 4 bright red LEDs.

- Power consumption: 0.5mA min./12mA max.
- Adjustable sensitivity

**Requires:** 8-15VDC power supply (P/N 100095, pg 241) or 9VDC battery (P/N 151095, pg 250)

| Part No. | Product No. | Dimensions            | 1      | 10     |
|----------|-------------|-----------------------|--------|--------|
| 147571   | MK103       | 2.5"L x 1.6"W x 1.4"H | \$9.95 | \$8.95 |



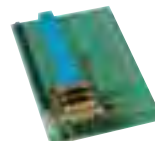
## Universal Relay Controller Card Kit 64-piece kit

An electronic controller that switches higher currents while providing insulation between the controller and the controlled devices.

- 8 channels expandable to 16 using 8 each P/N 144186
- Relay output: maximum 5A/220VAC
- TTL or 5V CMOS inputs (recommend P/N 34315, pg 31)
- Contact voltage: 12VDC @ 250mA

**Requires:** 220 or 125VAC power source

| Part No. | Product No.               | Dimensions    | Wt. (lbs.) | 1       | 10      |
|----------|---------------------------|---------------|------------|---------|---------|
| 128910   | K6714                     | 8.3"L x 5.9"W | 1.8        | \$59.95 | \$53.95 |
| 144186   | VR15M121C relay (JZC-22F) |               | 0.028      | 3.79    | 3.39    |





## velleman Parking Radar Kit 55-piece kit

Parking in tight places can be difficult, but this unit can tell you when you have come within an adjustable preset distance of the object near you.

- Detection range: 5cm – 1.5m; angle: 5°
- Transmitter frequency: 40kHz
- PCB size: base (4.9"L x 1.9"W) sensor (3.8"L x 1.1"W)

**Requires:** 10-15VDC @ 16mA max (recommend P/N 100095, pg 241) or auto power plug (recommend P/N 115002, pg 162)

| Part No. | Product No. |  | 1       | 10      |
|----------|-------------|--|---------|---------|
| 129120   | K3502       |  | \$39.95 | \$34.95 |

## velleman 3-Channel Light Organ Kit 80-piece kit

Add a 3-channel dancing light display to your music. Each channel displays a different range of sound.

- Frequency ranges are adjustable
- Microphone input
- Maximum load 2A per channel
- Each output has individual sensitivity control

| Part No. | Product No. | Dimensions            | Wt. (lbs.) | 1       | 10      |
|----------|-------------|-----------------------|------------|---------|---------|
| 131684   | K8017       | 6.7"W x 5.6"D x 1.7"H | 1.2        | \$49.95 | \$41.26 |

## IR LED Illuminator Kit 41-piece kit

- 36 high powered infrared LEDs
- At 24" the beam is approximately 3.5' across
- Improve low-light camcorder and CCD camera images without visible light

**Requires:** 12-15VDC power supply (recommend P/N 114825, pg 241)

| Part No. | Description        | Dimensions | 1       | 10             |
|----------|--------------------|------------|---------|----------------|
| 157964   | IR Illuminator kit | 2" Dia.    | \$16.95 | <b>\$12.71</b> |

## Stop Light Controller Kit 36-piece kit

This kit will simulate the operation of red, yellow, and green traffic lights. Applications such as model train displays, three way traffic intersections, dancing light in a party room, and other countless applications. If you would need to control larger lamps you can connect a relay or an I/O module to each output.

- Red, yellow and green LEDs included
- Power requirements: 7.5 to 18VDC

| Part No. | Cross Ref. No. | Dimensions    | 1       | 10      |
|----------|----------------|---------------|---------|---------|
| 662709   | STOP-1         | 2.8"L x 2.3"W | \$17.95 | \$16.16 |

## Senix Distance Sensor Modules

Sends out a sound wave 20 times per second and calculates the distance based on the time differential between sent and echoed signals. The distance is represented by an output voltage from 0 to 10VDC (P/N 134105) or RS-232 signal (P/N 151482).

- Sensing range: 4" to 60"
- Sensor diameter: 1.8"
- Board size: 2.8"L x 1.8"W x 0.9"H
- One-year warranty

**Requires:** 15 to 24VDC @ 40mA (not included), recommend P/N 114825, pg 241

- 134105: • Output voltage: 0-10VDC
- Each 1VDC increment = 5.6" (e.g.: 1VDC output = 9.6")
- 151482: • RS-232 output

**Includes:** Software diskette and computer cable

| Part No. | Description             | Wt. (lbs.) | 1        | 10       |
|----------|-------------------------|------------|----------|----------|
| 134105   | Sensor – voltage output | 0.2        | \$159.95 | \$143.95 |
| 151482   | Sensor – RS-232 output  | 1.0        | 179.95   | 161.95   |

## velleman Metal Detector 22-piece kit

- Proximity range adjustable to 8cm
- Size: 2.1"L x 2.1"W
- LED indicator; can use with a buzzer

**Requires:** 9V battery (recommend P/N 151095, pg 250)

| Part No. | Product No. | Description    | 1       | 10            |
|----------|-------------|----------------|---------|---------------|
| 129091   | K7102       | Metal detector | \$11.95 | <b>\$8.96</b> |

## velleman Scrolling Message Kit 76-piece kit

Create your own scrolling message with this 35-LED graphic display kit. Press "SET" to change a particular character, "UP or DOWN" arrow to select the character, and end your scrolling message with the "<" character.

- 35-LED display
- Maximum 16 characters

**Requires:** 9 to 12VDC @ 20mA (recommend P/N 100845, pg 241)

| Part No. | Product No. | Dimensions            | Wt. (lbs.) | 1       | 10      |
|----------|-------------|-----------------------|------------|---------|---------|
| 200310   | MK124       | 3.5"L x 2.6"W x 1.8"H | 0.2        | \$24.95 | \$22.45 |

## Moving Message Board

Ideal for advertisements and meetings. Two scrolling speeds and memory backup power (up to 3 months). Max. 600 characters can be programmed.

- 1.25" dot matrix LED display
- Large memory capacity: 4 messages + 1 alarm message
- Alarm message is activated by N.O. switch
- Memorized data are saved by backup battery (2 x AAA-batteries)
- Power supply: 12VDC/500mA adapter included
- 10 characters wide display
- Select fast or slow scrolling speed
- Low-battery indicator

| Part No. | Product No. | Dimensions (external/display)         | 1        | 5        |
|----------|-------------|---------------------------------------|----------|----------|
| 645474   | MML-10      | 11.8"L x 3.5"W x 2.8"H/10.8"L x 1.4"H | \$151.95 | \$144.35 |

## velleman Flashing LED Sweetheart Kit 46-piece kit

This kit shows a beating heart. Great for decorations!

- Power consumption: 8mA

**Requires:** 8 to 15VDC wall transformer (P/N 100095, pg 241) or 9VDC battery (P/N 151095, pg 250)

| Part No. | Product No. | Dimensions            | Wt. (lbs.) | 1       | 10      |
|----------|-------------|-----------------------|------------|---------|---------|
| 147555   | MK101       | 2.5"L x 2.4"W x 1.2"H | 0.1        | \$11.95 | \$10.95 |

## velleman Flashing LED Kit 23-piece kit

Activates 2 flashing LEDs for applications such as model building. Flashing speed controlled by potentiometers.

- 5.5" wire w/ 9V battery connector
- Consumption: 4mA min.

**Requires:** 9VDC battery (P/N 151095, pg 250)

| Part No. | Product No. | Dimensions            | Wt. (lbs.) | 1      | 10     |
|----------|-------------|-----------------------|------------|--------|--------|
| 147580   | MK102       | 1.3"L x 1.4"W x 0.6"H | 0.1        | \$7.95 | \$7.19 |

## 2-Digit Serial LED Display w/ Interface Kit 46-piece kit

- Bright, red jumbo-sized 7-segment displays (57mm)
- Up to 255 units can be separately addressed
- Power supply: 9-12VDC @ 120mA per display
- RS-232 interface: 2400 baud/8 data bits/no parity/one stop bit
- Can be linked to create large readout for score-keeping, timing and counting

| Part No. | Description            | Dimensions            | 1       | 5       |
|----------|------------------------|-----------------------|---------|---------|
| 645221   | 2-digit serial LED kit | 2.9"L x 2.3"W x 1.3"H | \$47.29 | \$43.31 |

## Fiber Optic Lab Kit

Kit contains nine fiber optic experiments and all the electronic components needed.

- Fiber optic cable transmission
- Characteristics of connectors and splices
- Speed of opto-electronic devices
- Making a light guide
- Index-matching procedures
- Weight: 0.7 lbs.
- Receiver design
- Fiber optic transmitter
- Fiber termination techniques

| Part No. | Description            | 1       | 10      |
|----------|------------------------|---------|---------|
| 169914   | Lab course and lab kit | \$44.95 | \$41.39 |

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Credit Card users only:

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**4**

| ITEM NO. | QTY. | PART NUMBER | DESCRIPTION | PAGE NO. | WEIGHT (LBS.) | UNIT PRICE | TOTAL |
|----------|------|-------------|-------------|----------|---------------|------------|-------|
| 1        |      |             |             |          |               |            |       |
| 2        |      |             |             |          |               |            |       |
| 3        |      |             |             |          |               |            |       |
| 4        |      |             |             |          |               |            |       |
| 5        |      |             |             |          |               |            |       |
| 6        |      |             |             |          |               |            |       |
| 7        |      |             |             |          |               |            |       |
| 8        |      |             |             |          |               |            |       |
| 9        |      |             |             |          |               |            |       |
| 10       |      |             |             |          |               |            |       |

PRODUCT WEIGHT

SUB-TOTAL

Packaging Weight  
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|-----------------------------------|--------------|---------------|-----------------------------------|--------------|---------------|
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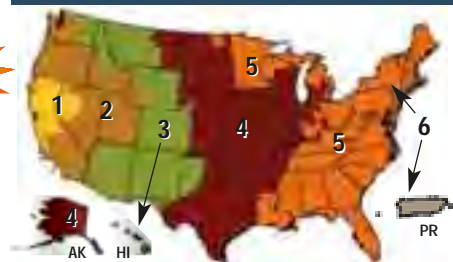
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|--------|--------|--------|
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## Prototyping Boards

**NEW**

The only prototyping system that allows one to work on one circuit block at a time, test the blocks individually, and then connect the blocks together. This is why the system is called "Electronic Circuit Building Blocks."



### Thru Hole Boards

**See pages 309 – 310 for more Proto Boards**

| Part No. | Product No. | Description   | Price  |
|----------|-------------|---|--------|
| 1537580  | 201-0001-01 | 0.1" center spacing w/ 0.5" offset, 12 ground holes | \$5.49 |

### Discrete Surface Mount Boards

|         |             |   |         |
|---------|-------------|---|---------|
| 1537715 | 202-0034-01 | 0201/0603/0805/1206/1210/1608/1812/ 2010/2512 discrete SMT in case size A/B/C                   | \$10.99 |
| 1537723 | 202-0035-01 | SOT23-3/5/6/SC70-5/6/DPAK/D2PAK/SOT223/T0263-7/ SOT89/0805/1206 discrete in case size A/B/C/D/E | 10.99   |

### SO/SOP Boards

|         |             |  |         |
|---------|-------------|--|---------|
| 1537635 | 202-004-01  | 4-56-pin SOIC w/ 0.05" pitch, 0603 and thru hole components, 12 ground holes                   | \$10.99 |
| 1537643 | 202-0007-01 | Up to 72-pin SO/SOP/QSOP/SSOP/TSSOP/PSSOP w/ 0.5mm pitch, 0603 & 0805 discrete, 6 ground holes | 10.99   |

### QFP Boards

|         |             |   |         |
|---------|-------------|---|---------|
| 1537651 | 202-0009-02 | Up to 64 pins QFP, TQFP, PQFP w/ 0.8mm pitch & 0603 discrete, 22 ground holes | \$10.99 |
| 1537660 | 202-0011-01 | 32-100 pins QFP, TQFP, PQFP w/ 0.5mm pitch & 0603 discrete, 6 ground holes    | 10.99   |

### CHIPSCALE (QFN) Boards

|         |             |   |         |
|---------|-------------|---|---------|
| 1537678 | 202-0016-01 | Supports 12-24 pins w/ 0.5mm & 0.65mm pitch | \$10.99 |
| 1537686 | 202-0017-01 | Supports 10 & 32 pin w/ 0.5mm pitch         | 10.99   |
| 1537694 | 202-0018-01 | Supports 8 & 48 pin w/ 0.5mm pitch          | 10.99   |
| 1537707 | 202-0020-01 | Supports 64 pin w/ 0.5mm pitch              | 10.99   |

### Thru Hole I/O and Power Board

|         |             |   |        |
|---------|-------------|---|--------|
| 1537598 | 201-0100-01 | Power & ground strip                            | \$2.75 |
| 1537601 | 201-0104-01 | DB-25 connector                                 | 2.75   |
| 1537619 | 201-0105-01 | JTAG 20-pin w/ 0.1" spacing & IEEE 1394         | 2.75   |
| 1537627 | 201-0106-01 | RGB HD-DB15, 4 ground holes                     | 2.75   |
| 1537803 | 201-0101-01 | Drive power conn. & power jack, 12 ground holes | 2.75   |
| 1537811 | 201-0102-01 | ATX power connector, 10 ground holes            | 2.75   |
| 1537820 | 201-0108-01 | RJ11 or RJ45 & one USB-B conn., 8 ground holes  | 2.75   |

### Accessories

|         |             |  |        |
|---------|-------------|--|--------|
| 1537740 | 920-0005-01 | 10 pcs. 22AWG 3" jumper wires & 20-pin headers | \$5.49 |
| 1537758 | 920-0006-01 | 10 pcs. 22AWG 5" jumper wires & 20-pin headers | 5.49   |
| 1537766 | 920-0007-01 | 10 pcs. 22AWG 7" jumper wires & 20-pin headers | 5.49   |
| 1537774 | 920-0008-01 | 100 pcs. 22AWG 3" jumper wires                 | 41.89  |
| 1537782 | 920-0009-01 | 100 pcs. 22AWG 5" jumper wires                 | 41.89  |
| 1537791 | 920-0010-01 | 100 pcs. 22AWG 7" jumper wires                 | 41.89  |

**SCHMART MODULE** Operates on a single 5V power source, ESD protected in excess of 15KV on all I/O lines, 4 LED's (2TRX & 2RCX), pre-installed headers for transceiver lines, +5V, & ground.

| Part No. | Product No. | Price   |
|----------|-------------|---------|
| 1537731  | 710-0001-01 | \$16.55 |





## EconoCinch & EconoCinch EG Rip-Ties

The loop lock acts like a pulley, giving you leverage to pull the strap as tight as needed. The non-metallic buckle is safe to use around electrical and magnetic equipment. The EconoCinch EG has a solid brass grommet with an ID of 1/4".


**NEW**




**See page 111 for more RipTies**

| Part No. | Description   | 1       | 10      |
|----------|---|---------|---------|
| 744691   | 3/4"W x 18"L, black, 5-pack  | \$10.69 | \$10.45 |
| 746081   | 3/4"W x 36"L, black, 5-pack  | 13.65   | 13.35   |
| 748588   | 3/4"W x 7"L, black, 5-pack   | 8.69    | 8.49    |
| 749951   | 3/4"W x 10"L, black, 5-pack  | 9.65    | 9.45    |

♣ This product ships from a separate warehouse and may require up to 4 days to ship. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

 RoHS compliant product

 This product is available in both RoHS and non-RoHS versions. Add an "R" before part number for RoHS version. [Details on page 1.](#)



## Universal 48-Pin USB Programmer

- Supports 7,000+ devices including the latest NAND flash memory, standard flash memory, EPROM, EEPROM, serial PROM & microcontrollers
- Device programming speed: 1.5M-bit per second
- Low voltage supports 5, 3.3, 3, 2.7, 2.5, 1.8V programming voltages
- Blank check/program/verify 4M-bit flash memories in 85 sec.
- Supports ASCII, Intel HEX, Motorola S, Tektronix HEX, JEDEC & HOF file formats • Weight: 3.5 lbs.
- User-friendly menu driven iram, verify, blank check, erase, gang programming mode, edit & set programming options via host PC
- Independent start key in each socket
- Input voltage: 100-240VAC @ 50-60Hz
- Size: 10.6"W x 3.8"D x 2.5"H

**NEW**



**See pages 310 – 312 for more Programmers**

**Includes:** USB cable, CD-ROM software & users manual

































**System requirements:** 386/486/Pentium® or compatible, USB 1.1 or 2.0, 4MB hard disk space, 16MB RAM, Windows® 95/98/ME/2000/NT/XP operating system

| Part No. | Product No.               | 1          | 5          |
|----------|---------------------------|------------|------------|
| 694891   | PROMAX-4G                 | \$2,150.05 | \$2,042.50 |
| 694882   | TM-8G-DP (8-gang adapter) | 325.05     | 308.75     |

**See pages 4 – 6 for more MCUs**

## NXP/PHILIPS MCUs



| Part No. | Product No.  | Pkg.     | Description   | 1      | 10     |
|----------|--|----------|---|--------|--------|
| 854541   | P80C31SBBB          | PQFP-44  | 128 x 8 RAM ROMless, LV (2.7V-5.5V), LP, hi-speed (16MHz)               | \$1.69 | \$1.64 |
| 917337   | P80C32UFAA          | PLCC-44  | 128/256 byte RAM ROMless LV (2.7V-5.5V), LP, hi-speed (33MHz), I-temp   | 2.25   | 2.00   |
| 917361   | P80C32UFBB          | PQFP-44  | 128/256 byte RAM ROMless LV (2.7V-5.5V), LP, hi-speed (33MHz)           | 2.05   | 1.97   |
| 854575   | P80C51FA-4A         | PLCC-44  | 8-bit MCU, ROMLESS, LV (2.7V-5.5V), LP, hi-speed (16MHz)                | 4.95   | 4.80   |
| 854604   | P80C552EFA          | PLCC-68  | 8-bit, single chip w/ 10-bit A/D, timer, hi-speed (16MHz), I-temp       | 11.75  | 11.40  |
| 854639   | P80C552IFA          | PLCC-68  | 8-bit, single chip w/ 10-bit A/D, timer, hi-speed (24MHz), I-temp       | 12.19  | 11.82  |
| 854655   | P80C557E4FB        | PQFP-80  | 8-bit single chip, 3.5MHz - 16MHz, I-temp                               | 17.19  | 16.68  |
| 854680   | P80C592FFAA       | PLCC-68  | 8-bit w/ on-chip CAN, 1.2MHz - 16MHz, w/o ROM, I-temp                   | 18.49  | 17.94  |
| 854719   | P87C51FA-4A       | PLCC-64  | 8-bit, 8k x 8 OTP, LV (2.7V-5.5V), LP, hi-speed (16MHz)                 | 6.09   | 5.90   |
| 854743   | P87C51FA-5A       | PLCC-44  | 8-bit, 3k x 8 OTP, LV (2.7V-5.5V), LP, hi-speed (0-16MHz)               | 6.75   | 6.52   |
| 854778   | P87C51MB2BA/02-S  | PLCC-44  | 8-bit w/ extended memory, 64Kb/96Kb OTP w/ 2Kb/3Kb RAM                  | 7.85   | 7.39   |
| 854807   | P87C51RA+4A       | PLCC-44  | 8-bit, 3k x 8 OTP, LV (2.7V-5.5V), LP, hi-speed (0-16MHz)               | 4.29   | 4.17   |
| 854831   | P87C51RA+1A       | PLCC-44  | 8-bit, 8k x 8 OTP, LV (2.7V-5.5V), LP, hi-speed (33MHz)                 | 4.29   | 4.17   |
| 854866   | P87C51RC+4A       | PLCC-44  | 8-bit, 32k x 8 OTP, LV (2.7V-5.5V), LP, hi-speed (16MHz)                | 6.05   | 5.86   |
| 854882   | P87C51RD+4A       | PLCC-44  | 8-bit, 64k x 8 OTP, LV (2.7V-5.5V), LP, hi-speed (16MHz)                | 8.55   | 8.29   |
| 854903   | P87C52SBBB        | QFP-44   | 8-bit, 4Kb OTP/ROM, 128/256 B RAM, LV (2.7V-5.5V), LP, hi-speed (16MHz) | 2.85   | 2.76   |
| 854938   | P87C554SFAA       | PLCC-68  | 8-bit, 16K/512 OTP/ROM, 8-ch, 10-bit A/D, I2C PWM, (16MHz), I-temp      | 15.99  | 15.54  |
| 854962   | P87C591VFAA       | PLCC-44  | Single chip 8-bit w/ CAN controller                                     | 9.59   | 9.05   |
| 917409   | P87LPC762BD       | SOIC-20  | LP w/ 2Kb OTP, 20MHz (5V) / 10MHz (3V)                                  | 1.95   | 1.87   |
| 854997   | P87LPC764BDH      | SOIC-20  | LP w/ 4Kb OTP, 20MHz (5V) / 10MHz (3V)                                  | 2.09   | 2.01   |
| 855025   | P87LPC769HD       | SOIC-20  | LP w/ 4Kb OTP, 8-bit A/D & DAC, 20MHz (5V) / 10MHz (3V)                 | 5.05   | 4.88   |
| 855050   | P89C660HBBB       | LQFP-44  | 8-bit, 16Kb ISP/IAP flash, 512B RAM, 20MHz - 33MHz                      | 7.69   | 7.44   |
| 855092   | P89C662HBA        | PLCC-44  | 8-bit, 32Kb ISP/IAP flash, 1Kb RAM, 20MHz - 33MHz                       | 9.09   | 8.81   |
| 855121   | P89C664HFA        | PLCC-44  | 8-bit, 64Kb ISP/IAP flash, 2Kb RAM, 20MHz-33MHz, I-temp                 | 11.59  | 11.26  |
| 855156   | P89C664HFBDB      | LQFP-44  | 8-bit, 64Kb ISP/IAP flash, 2Kb RAM, 20MHz-33MHz, I-temp                 | 11.55  | 11.19  |
| 855181   | P89C668HBA        | PLCC-44  | 8-bit, 64Kb ISP/IAP flash, 8Kb RAM                                      | 11.25  | 10.90  |
| 855210   | P89V51RC2FA       | PLCC-44  | 8-bit, 5V LP, 32Kb flash, 1Kb RAM, I-temp                               | 5.49   | 5.17   |
| 855252   | P89V51RD2FA       | PLCC-44  | 8-bit, 5V LP, 64Kb flash, 1Kb RAM, I-temp                               | 6.35   | 5.98   |
| 855279   | P89V51RD2FBC      | TQFP-44  | 8-bit, 5V LP, 64Kb flash, 1Kb RAM, I-temp                               | 6.29   | 6.09   |
| 917441   | PCA9500PW         | TSSOP-16 | 8-bit I2C & SMBUS I/O port w/ 2Kbit EEPROM, I-temp                      | 1.95   | 1.57   |
| 917476   | PCA9501PW         | TSSOP-20 | 8-bit I2C & SMBUS I/O port w/ 2Kbit EEPROM & 6 address pins, I-temp     | 1.65   | 1.67   |
| 855308   | PCA9535PW         | TSSOP-24 | 16-bit I2C & SMBUS, LP I/O port w/ interrupt, I-temp                    | 1.55   | 1.22   |
| 917505   | PCA9551PW         | TSSOP-16 | 8-bit I2C LED driver w/ programmable blink rates, I-temp                | 1.69   | 1.37   |
| 917530   | PCA9552PW         | TSSOP-24 | 8-bit I2C bus LED driver w/ programmable blink rates                    | 2.19   | 1.76   |
| 855332   | PCA9554ADB        | SSOP-16  | 8-bit I2C & SMBUS I/O port w/ interrupt, I-temp                         | 1.59   | 1.29   |
| 855367   | PCA9554APW        | TSSOP-16 | 8-bit I2C & SMBUS I/O port w/ interrupt, I-temp                         | 1.59   | 1.29   |
| 917564   | PCA9556PW         | TSSOP-16 | Octal SMBUS & I2C registered interface, I-temp                          | 1.99   | 1.61   |
| 917599   | PCA9557PW         | TSSOP-16 | 8-bit I2C & SMBUS I/O port w/ interrupt, I-temp                         | 1.29   | 1.25   |
| 855383   | PCA9633D16        | SOIC-16  | 4-bit I2C bus LED driver  | 1.38   | 1.12   |
| 855439   | PCA9633PW         | TSSOP-16 | 4-bit I2C bus LED driver  | 1.13   | 1.10   |
| 917628   | PCF8566TD-T       | VSOP-40  | Universal LCD driver for low multiplex rates                            | 2.05   | 1.63   |
| 917652   | PCF8582C2D        | SOIC-8   | 256 x 8 CMOS EEPROM w/ I2C bus interface                                | 1.02   | .86    |
| 917687   | PCF8583PN         | DIP-8    | Clock calendar w/ 240 x 8 RAM   | 2.85   | 2.61   |
| 917716   | PCF8583TD         | SOIC-8   | Clock calendar w/ 240 x 8 RAM   | 2.19   | 2.13   |

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